

**ZIMBABWE
CURRENT VULNERABILITY
ASSESSMENT REPORT**

for

1999/2000 Consumption Period

by



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ABBREVIATIONS

SGR	Strategic Grain Reserve
GMB	Grain Marketing Board
GLP	Grain Loan Programme, same as Grain Loan Scheme (GLS)
NEWU	Zimbabwe National Early Warning Unit
CL	Communal land same as Communal Area (CA)

The Consumption year or period (1st April 1999 to 31st March 2000) is used interchangeably with the marketing year (period).

EXECUTIVE SUMMARY

Objectives of the Analysis

The Current Vulnerability Assessment (CVA) for Zimbabwe reviews the 1998/99 production season (October 1998 to April 1999) in order to assess food security during the 1999/2000 consumption (marketing) period (1 April 1999 to 31 March 2000). The CVA assesses:

- food available at national level
- food availability and access for the 174 communal areas (the 4th administration level), stratified into cattle owning and non-cattle owning households
- vulnerability and associated risks to food security at this level.

The assessment was carried out jointly by the Zimbabwe National Early Warning Unit (NEWU) and USAID Famine early Warning System (FEWS).

Food Availability

Despite experiencing one of the wettest seasons of the decade, food availability both at national and sub national level in 1999/2000 is better than 1998/99 period. At national level, the domestic cereal deficit is estimated at about a million mt. This is made up of 797,000 mt of maize, millets and sorghum, 188,000 mt of wheat and 380 mt of rice. However, if more imports are made to cover the deficit and reconstitute the SGR to the desired level, the cereal deficit at the end of the marketing year will be reduced to 285,000 mt. The deficit can be slightly reduced through imports of wheat and rice by private traders.

Grain production at sub national level in 1998/99 production season was better than the 1997/98 season, with the usual grain deficit areas producing enough grain to meet needs or even surplus grain.

Food Access

There is a general increase in food access for the communal areas in 1999/2000 consumption year compared to last year as indicated by Maize Equivalent Income (MEI). The increase in the food access despite the incessant rains, which reduced the 1998/99 harvests in some instances, is attributed to three factors:

- an expansion in the hectareage under cotton and groundnuts in the 1998/99 production season.
- an increase in the production of cash crops compared to 1997/98 and the 1990s average, (one of the best in the 1990s).
- an increase of over 100 percent in the prices of some cash crops and livestock compared to 1998/99 marketing year; these price increases were higher than those of the staple crops.

Food Security

The 1999/2000 CVA estimates that there are 1.2 million people residing in moderately and highly food insecure communal areas. Only 40 out of 174 communal areas are classified as food insecure, of which 20 are classified as highly food insecure. Of these highly food insecure areas, some lost more than 50 percent of their Maize Equivalent Income (MEI) compared to the 1990s average. The number of food insecure communal areas has decreased to 40 in the 1999/2000 consumption period compared to 70 communal areas in 1998/99 consumption period. Particular attention is required where these communal areas fall under the high potential crop producing regions, as they rely mainly on agriculture for their livelihood. The fact that almost equal numbers of both cattle owners and non cattle owners are food insecure, raises the need for further investigations to determine the number of cattle per household that separates food secure from food insecure households. However, it should be noted that not all households in these communal areas identified as food insecure are necessarily insecure, as each household has different methods of accessing food. Rather, these are the areas in which there is the highest probability of finding households and communities that are short of the minimum amount of food access required for the 1999/2000-consumption year.

This analysis has identified the communal areas shown in the table below as **highly food insecure** (with less than 166 kgs per capita maize-equivalent income) and **moderately food insecure** (from 166 kgs up to 250 kgs per capita) areas. Communal areas that are **food secure** (more than 250 kgs per capita) are listed in the appendices.

The isolated Highly and Moderately Food Insecure Communal Areas in 1999/2000

Communal Area	District	Province	Total Pop	Non Cattle Owners				Cattle Owners			
				Pop	1999	1998	1990s	Pop	1999	1998	1990s
Highly Food Insecure Communal areas											
Hwange CL	Hwange	Mat North	70186	35093	61	147	192				
Manyame CL	Gweru	Midlands	45708	22854	62	131	225	22854	205	222	225
Mzinyatini CL	Umzingwane	Mat South	19296	11577	65	78	110	7718	209	140	110
Ramakwebane CL	Bulilimamangwe	Mat South	15249	7955	78	77	226				
Semukwe CL	Matobo	Mat South	29965	14982	84	83	416	14982	84	52	416
Diti CL	Beitbridge	Mat South	12881	258	88	83	337	12623	199	112	337
Tshatshani CL	Matobo	Mat South	8911	3502	101	154	307	5409	221	324	307
Mpimbila CL	Bulilimamangwe	Mat South	16657	1588	102	160	390				
Siyoka CL	Beitbridge	Mat South	14510	12343	112	100	451				
Chinyika CL	Goromonzi	Mash East	10491	5246	113	145	388	5246	118	233	388
Masoso West CL	Mount Darwin	Mash Central	22461	11230	116	94	220	11230	114	97	220
Nswazi CL	Umzingwane	Mat South	11982	7788	133	195	259				
Zimunya CL	Mutare	Manicaland	22600	452	136	219	222	22148	145	199	222
Ingwezi CL	Bulilimamangwe	Mat South	1598	1045	138	135	330				
Lupane CL	Lupane	Mat North	97487	43697	140	172	465				
Manjolo CL	Binga	Mat North	80976	15385	140	82	169				
Kumalo CL	Matobo	Mat South	13007	5983	144	74	372				
Siabuwa CL	Binga	Mat North	28565	23335	145	97	243				
Zimutu CL	Masvingo	Masvingo	15052	8279	147	117	806	6774	220	158	806
Inkosikazi CL	Bubi	Mat North	16676	8338	160	184	596				
Moderately Food Insecure Areas											
Runde CL	Zvishavane	Midlands	43792	21896	171	111	456				
Nkayi CL	Nkayi	Mat North	125526	37658	172	277	554				
Mtetengwe CL	Beitbridge	Mat South	23725	475	176	96	286				
Matopo CL	Umzingwane	Mat South	19471	5452	181	119	848				
Sansukwe CL	Bulilimamangwe	Mat South	16861	8780	181	359	377	8081	205	358	377
Makoni CL	Makoni	Manicaland	32478	14850	186	145	467	17627	214	169	467
Brunapeg CL	Bulilimamangwe	Mat South	5289	2590	186	220	186				
Mkota CL	Mudzi	Mash East	84138	1683	187	294	3117	82455	194	301	3117
Dora CL	Mutare	Manicaland	11913	2281	195	513	638	9632	209	185	638
Masera CL	Beitbridge	Mat South	2189	1254	198	255	2442				
Esiphezini CL	Umzingwane	Mat South	4033	81	198	353	713				
Inyathi CL	Bubi	Mat North	5054	101	205	234	413				
Mutasa South CL	Mutasa	Manicaland	18569	1574	206	342	562	16995	236	363	562
Zvimba CL	Zvimba	Mash West	38682	19341	208	192	933				
Lubimbi CL	Binga	Mat North	5679	1277	211	801	444				
Serima CL	Gutu	Masvingo	15116	7558	217	288	807				
Muzarabani CL	Centenary	Mash Central	126704	63352	226	377	1155	63352	242	410	1155
Chiduku CL	Makoni	Manicaland	89612	39327	233	87	497				
Wenlock CL	Gwanda	Mat South	12821	8526	241	163	405				
Mphoengs CL	Bulilimamangwe	Mat South	13767	8533	249	186	338				
Total Population for the 40 CAs			1249677								
Total Highly food Insecure			349915	240931				108984			
Total Moderately Food Insecure			444732	246589				198143			
Total Insecure			7946446	487520				307127			

Of the 1.2 million residents in the 40 food insecure communal areas, the CVA estimates that as many as 800,000 people are food insecure, of which 44 percent are identified as highly food insecure. Of the food insecure population, at least 61 percent do not own cattle. In-depth local needs assessments are required for better targeting of any assistance to food insecure households.

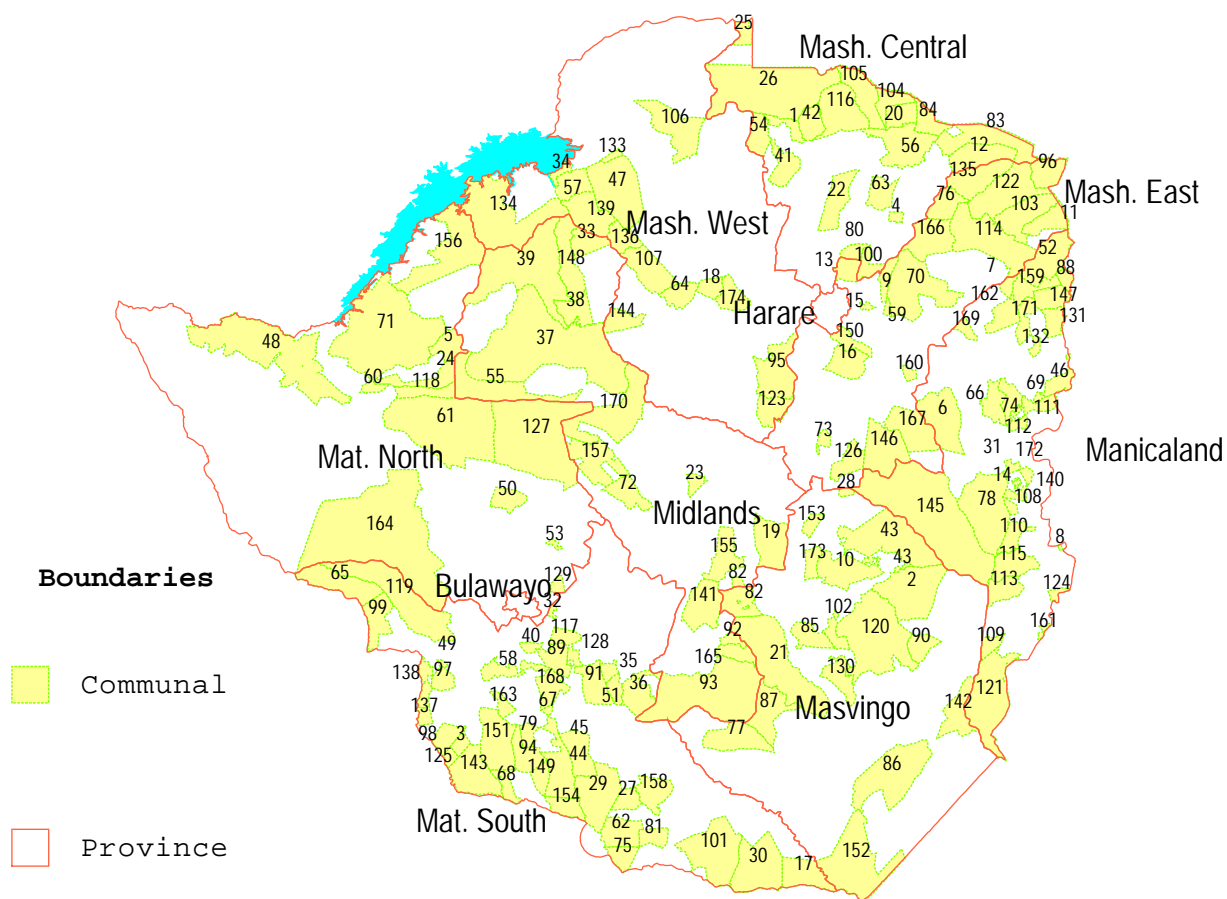
Factors threatening Food Security in 1999/2000 Consumption Year (Risks Ahead)

The escalating inflation rate standing at almost 70 percent in August will erode the purchasing power of populations who rely on purchased grain and maize meal, hence making them increasingly food insecure. The suspension of the Free Food Program (for the chronically ill, disabled and old) and the Grain Loan Programme by Government in April, may threaten the food security conditions of those in the food insecure communal areas.

Actions Required

- Despite a good season, some households are food insecure in 1999/2000 consumption period. To maintain acceptable levels of food security, food aid may be required in some of the areas identified as food insecure in this assessment.
- Proper targeting of food aid is required if the population in need is to benefit.
- Government should co-ordinate aid activities and change operational policy so that aid to the needy areas can be rendered without necessarily declaring a disaster.
- In the medium to long term, there is need to identify the number of cattle owned by a household when determining food security threshold. A proper targeting mechanism based on the number of cattle owned by a household need to be developed to isolate the food secure from the insecure.
- Some communal farmers may meet immediate food requirements but only by sacrificing their investment in next season's production. Input purchasing or credit schemes are needed, especially given the increase in the prices of basic inputs if high crop yields are to be realized in the next production season.
- Use of the Strategic Grain Reserve (SGR), was haphazard in the past. In 1998/99 the SGR was almost exhausted in the process of providing food aid and selling commercial grain. Its use need to be structured and a policy set out as to the price threshold when grain could be released if it is to be used for price stabilization. If it is to be used as food aid, then targeting mechanisms and the timing of distribution should also be established and followed.
- As a follow up to the Drought and Disaster Management Policy gazetted by Government in 1998, a drought mitigation and management plan should be drawn up and implemented.
- There is need to strengthen local initiatives on food security programs like community based food production and storage or community food banks (*zunde ramambo*).

Map 1. Country Map showing communal areas by province



(see key to the communal area names below)

Key to Communal Lands Map

Code Communal Area District

1	Bakasa CL	Guruve
2	Bikita CL	Bikita
3	Brunapeg CL	Bulilimamangwe
4	Bushu CL	Shamva
5	Busi CL	Binga
6	Chiduku CL	Makoni
7	Chikore CL	Makoni
8	Chikukwa CL	Chimanimani
9	Chikwaka CL	Goromonzi
10	Chikwanda CL	Gutu
11	Chikwizo CL	Mudzi
12	Chimanda CL	Rushinga
13	Chinamora CL	Goromonzi
14	Chinyauhera CL	Mutare
15	Chinyika CL	Goromonzi
16	Chiota CL	Marondera
17	Chipise CL	Beitbridge
18	Chirau CL	Zvimba
39	Chireya/Chirisa CL	Gokwe North
19	Chirumanzu CL	Chirumhanzu
20	Chiswiti CL	Mount Darwin
21	Chivi CL	Chivi
22	Chiweshe CL	Mazowe
23	Chiwundura CL	Gweru
24	Dandanda CL	Lupane
25	Dande CL	Guruve
26	Dande South CL	Guruve
27	Dendele CL	Beitbridge
28	Denhere CL	Gutu
29	Dibilishaba CL	Gwanda
30	Diti CL	Beitbridge
31	Dora CL	Mutare
32	Esiphezini CL	Umzingwane
33	Gandavaroyi CL	Gokwe North
34	Gatshe Gatshe CL	Kariba
35	Glassblock CL	Insiza
36	Godlwayo CL	Insiza
37	Gokwe (new) CL	Gokwe South
38	Goredema CL	Gokwe North
40	Gulati CL	Matobo
41	Guruve CL	Guruve
42	Gutsa CL	Centenary
43	Gutu CL	Gutu
43	Gutu CL	Gutu
44	Gwanda CL	Gwanda
45	Gwaranyemba CL	Gwanda
46	Holdenby CL	Mutasa
47	Hurungwe CL	Hurungwe
48	Hwange CL	Hwange
49	Ingwezi CL	Bulilimamangwe
50	Inkosikazi CL	Bubi
51	Insiza CL	Insiza
52	Inyanga North CL	Nyanga
53	Inyathi CL	Bubi
54	Kachuta CL	Guruve

Code Communal Area District

55	Kana CL	Gokwe South
56	Kandeya CL	Mount Darwin
57	Kanyati CL	Kariba
58	Kumalo CL	Matobo
59	Kunzwi CL	Goromonzi
60	Lubimbi CL	Binga
61	Lupane CL	Lupane
62	Machuchuta CL	Beitbridge
63	Madziwa CL	Shamva
64	Magondi CL	Makonde
65	Maitengwe CL	Bulilimamangwe
66	Makoni CL	Makoni
67	Makwe CL	Gwanda
68	Mambali CL	Matobo
69	Manga CL	Mutasa
70	Mangwende CL	Murehwa
71	Manjolo CL	Binga
72	Manyame CL	Gweru
73	Manyene CL	Chikomba
74	Manyika CL	Mutasa
75	Maramani CL	Beitbridge
76	Maramba CL	UMP
77	Maranda CL	Mwenezi
78	Marange CL	Mutare
79	Maribeha CL	Matobo
80	Masembura CL	Bindura
81	Masera CL	Beitbridge
82	Mashava North CL	Shurugwi
21	Mashava South	Chivi
83	Masoso East CL	Rushinga
84	Masoso West CL	Mount Darwin
85	Masvingo CL	Masvingo
86	Matibi 2 CL	Chiredzi
87	Matibi 1 CL	Mwenezi
88	Matizi CL	Nyanga
89	Matopo CL	Umzingwane
90	Matsai CL	Bikita
91	Matshetshe CL	Gwanda
92	Mazvihwa CL	Zvishavane
93	Mberengwa CL	Mberengwa
94	Mbongolo CL	Matobo
95	Mhondoro CL	Chegutu
96	Mkota CL	Mudzi
97	Mpande CL	Bulilimamangwe
98	Mphoengs CL	Bulilimamangwe
99	Mpimbila CL	Bulilimamangwe
100	Msana CL	Bindura
101	Mtetengwe CL	Beitbridge
102	Mtirikwi CL	Masvingo
103	Mudzi CL	Mudzi
104	Mukumbura East	Mount Darwin
105	Mukumbura West	Centenary
106	Mukwichi CL	Hurungwe
107	Mupfure CL	Makonde
108	Muromo CL	Mutare
109	Musikavanhu CL	Chipingwe

Code Communal Area District

110	Mutambara CL	Chimanimani
111	Mutasa North CL	Mutasa
112	Mutasa South CL	Mutasa
113	Mutema CL	Chipingwe
114	Mutoko CL	Mutoko
115	Muwushu CL	Chimanimani
116	Muzarabani CL	Centenary
117	Mzinyatini CL	Umzingwane
118	Mzola CL	Lupane
119	Nata CL	Bulilimamangwe
120	Ndanga CL	Zaka
121	Ndowoyo CL	Chipingwe
122	Ngarwe CL	Mudzi
123	Ngezi CL	Kadoma
124	Ngorima/Chikukwa	Chimanimani
125	Ngulube CL	Bulilimamangwe
126	Nharira CL	Chikomba
127	Nkayi CL	Nkayi
128	Nswazi CL	Umzingwane
129	Ntabazinduna CL	Umguza
130	Nyajena CL	Masvingo
131	Nyamaropa CL	Nyanga
132	Nyanga CL	Nyanga
133	Nyaodza CL	Hurungwe
134	Omay CL	Kariba
135	Pfungwe CL	UMP
136	Piriwiri CL	Hurungwe
137	Radtadi CL	Bulilimamangwe
138	Ramakwebane CL	Bulilimamangwe
139	Rengwe CL	Hurungwe
140	Rowa CL	Mutare
141	Runde CL	Zvishavane
142	Sangwe CL	Chiredzi
143	Sansukwe CL	Bulilimamangwe
144	Sanyati CL	Kadoma
145	Save CL	Buhera
146	Save North CL	Chikomba
147	Sawunyama CL	Nyanga
148	Sebungwe CL	Gokwe North
149	Seear Block CL	Matobo
150	Seke CL	Seke
151	Semukwe CL	Matobo
152	Sengwe CL	Chiredzi
153	Serima CL	Gutu
154	Shashi CL	Gwanda
155	Shurugwi CL	Shurugwi
156	Siabuwa CL	Binga
157	Silobela CL	Kwekwe
158	Siyoka CL	Beitbridge
159	Saint Swithins CL	Nyanga
160	Svosve CL	Marondera
161	Tamandayi CL	Chipingwe
162	Tanda CL	Makoni
163	Tshatshani CL	Matobo
164	Tsholotsho CL	Tsholotsho
165	Ungova CL	Zvishavane

166	Uzumba CL	UMP
167	Wedza CL	Wedza
168	Wenlock CL	Gwanda
169	Weya CL	Makoni
170	Zhombe CL	Kwekwe
171	Zimbiti CL	Nyanga
172	Zimunya CL	Mutare
173	Zimutu CL	Masvingo
174	Zvimba CL	Zvimba

SECTION I: INTRODUCTION AND CONCEPTS

Food Security Concepts:

A Current Vulnerability Assessment (CVA) presents a broad analysis of food security beyond food self-sufficiency. This CVA for Zimbabwe reviews the 1998/99 production year (April 1998-March 1999) in order to assess food security during the 1999/2000 consumption year (April 1999-March 2000).

The CVA assesses:

- food availability at the national level;
- food availability and access for households (stratified into cattle-owning and non-cattle-owning households) in 174 communal areas (the 4th administrative level); and
- vulnerability and associated risks to food security in the remainder of the consumption period. vulnerability is a concept that combines “food security” with a consideration of the “risk” factors that increase or decrease food security conditions during the consumption year.

Food security is a condition in which a population has physical, social and economic access to sufficient safe and nutritious food over a given period to meet dietary needs and food preferences for an active life.

There are three fundamental aspects of food security: food availability, food access and food utilisation.

Food availability is defined as the amount of food which is, and will be, physically present in a specified area during the specified period, and this is comprised of domestic production, stocks, trade and transfers.

Food access refers to a household’s ability to acquire that “available” food, either through its own (on-farm) production and stocks, market transactions (cash or in-kind), or transfers (private or government gifts and loans) for the specified period. **Food utilisation** is the ability of the household to derive sufficient nutrition from the available and accessible food and meet dietary requirements.

The CVA analysis is founded on a model of household income, or more implicitly, strategies households use to acquire food (whether acquiring food directly from own production, or purchasing food, or barter trade). It assumes that household income is composed of production for home consumption and market sales, other income-generating activities, transfers (both public and private), and assets (both current stocks and ability to acquire new assets that can be converted into current income). The analysis focuses on availability and access and does not discuss utilization (see Appendix A for details).

Lastly, this CVA identifies risk factors that could worsen the food security status of communal area households during the consumption year. Vulnerability in the food security context is the acute decline in food access or consumption level below some established consumption threshold. Vulnerability to food insecurity thus entails exposure to risk and inability to cope with those risks. Risks include shocks or conditions that adversely effect a population’s food security, such as drought, conflict, or economic changes. Inability to cope is the result of underlying environmental or socio-economic processes that reduces the capacity of an affected population to (completely) re-establish its food security once exposed to risk (see Appendix A for more details).

CVA objectives:

Using this conceptual approach, the objectives of the CVA are to:

- Quantify the aggregate food availability at national level and evaluate whether this will be sufficient to meet the consumption needs of the entire population;
- Quantify the food available for the communal-sector populations from all sources (production, income, and transfers)
- Evaluate the food security status of the socio-economic groups of the communal-sector populations by comparing food available and accessible with income and consumption requirements.

- Describe risk factors that worsen food security status in the communal sector during the current consumption period.
- Provides a basis for determining where concerted monitoring, further in-depth assessments of the most food insecure communal populations, and possible interventions (including emergency food aid) may be needed.

Zimbabwe CVA Process:

This assessment is being carried out as a joint collaboration of the National Early Warning Unit (NEWU) in the Ministry of Agriculture's Department of Agricultural Technical and Extension Services (AGRITEX), and FEWS/Zimbabwe.

The CVA report is conducted in a logical manner. Section 2 looks at the outcome of the 1998/99 production season, and Section 3 examines the aggregate food available on a national level. Section 4 focuses on performance of each income source at communal area level. Section 5 aggregates the income sources for each communal area by socio-economic group to measure food access in terms of maize equivalent income (MEI, see below), to form the basis of judging food security conditions. Section 6 describes the risks (shocks) that could affect household food security in 1999/2000 consumption period. Finally, Section 7 concludes the CVA by calling for specific actions.

From Section 4 onwards, MEI for each income source was calculated and summed at communal, district and provincial level. The summary at district and provincial level is found mainly in the Appendices and is described in passing in the text as focus is at communal area level.

CVA Methodology

Basic Characteristics of this CVA. The consumption period for this Current Vulnerability Assessment is 1 April 1999 to 30 March 2000. The data used here come primarily from secondary and primary data sources in the country, principally produced by Government agencies. The 1998/99 crop production and 1998 livestock data were used in the analysis. The 1999 population figures are FEWS-derived estimates of the mid-marketing year (October 1999) population, based upon the 1992 Census estimates, and observed ward-level growth rates between 1982 and 1992.

The CVA uses the rural Communal Area (CA) or communal land (CL) as its most disaggregated unit of investigation. This sector (CA) comprises between 60-70 percent of Zimbabwe's total population. The CVA breaks down the population of each CA into two socio-economic groups (cattle owning and non-cattle owning households). Local knowledge of food security conditions gathered through a participatory rapid rural appraisal is used in combination with results of the primary data analysis in the CVA (see Appendix A for more details).

As highlighted on Map 1 above, the focus of the CVA is the communal sector. The analysis is done at the communal sector because of its size and the chronic food security conditions resulting partly from its poor natural resource base and other socio-political disadvantages. Other sectors will not be treated - the urban areas, national parks and the three other farming sectors, that is, the resettlement (relatively very small), the small-scale commercial and the large-scale commercial occupy the remaining part of the country.

Maize-Equivalent Income (MEI): Food access will be measured in Maize-Equivalent Income (MEI) units. This means that the monetary value of all crop production and livestock off-take, other income, and transfers in communal areas, will be converted into the amount of maize that could be purchased by exchanging them at the time of the assessment. This procedure maintains an immediate link between income and the staple food in Zimbabwe - and allows a comparison of current "income" and "food access" conditions directly with those of previous years without having to make adjustments for inflation

or other economic factors. For this CVA, the GMB floor purchase price of Z\$4,2000 per mt of maize is used to value the income sources to MEI. This price corresponds to the average maize grain price during August 1999 in most communal areas including the usually grain deficit areas.

The Standard of Food Security Used in the Assessment: How much income and/or production is required for a communal-area population in Zimbabwe to be relatively food secure in the current consumption year? As in Section III, the status quo average consumption of grains over the 1990s has been approximately 166 kgs of cereals per capita per annum¹ (about 1,600 kcal daily), from all domestic and external sources.

Recognizing that minimal food security requires the consumption of foods other than cereals, and that trying to minimize the possibility that this assessment identifies an area as food secure when it might not be, and the Assessment will add an additional amount of maize equivalent to bring the minimum standard of food security up to a threshold of 250 kgs per capita (about 2,400 kcal daily). Below this amount, some degree of food insecurity is suspected.

In order to reflect the appropriate magnitude of food insecurity in the communal areas, the CVA considers four broad categories of food insecurity, namely:

- **Extremely food-insecure:** populations who have depleted their asset base to such a degree that without immediate outside assistance, they will face famine.
- **Highly food-insecure:** populations who cannot meet their food needs during the current year without reducing consumption or drawing down assets to such a degree that they compromise their future food security.
- **Moderately food-insecure:** populations who can meet their food needs in the current year, but only by drawing down savings or relying heavily on secondary-income activities. Should market access or income from secondary activities be compromised, these populations might become highly food insecure in the current year.
- **Food-secure:** populations who can meet their food need in the current year without altering normal income activities or depleting savings.

This CVA has grouped communal areas into highly food-insecure (where maize-equivalent income falls below 166 kgs per capita per year), moderately food-insecure (between 166 kgs and 250 kgs per capita) and food secure (more than 250 kgs per capita). While it is likely that people in some communal areas are worse-off than others within the highly food-insecure category, this CVA hesitates to classify them as extremely food-insecure due to data limitations.

¹ The 166 kgs per capita per annum has been derived from the 1990s average status quo consumption of all cereals available in the country (from production and imports), whilst the 250 kgs per capita is the amount of maize which meets the caloric requirements in Zimbabwe.

SECTION II: SEASON QUALITY

Objectives:

- *This section reviews climatic trends of the 1998/99 production season.*
- *This section reviews the outcome of the season and discusses the onset of the rainy season, rainfall amount and number of rainy days.*

II-A Seasonal Rainfall Pattern in 1998/99

Rainfall Distribution: The rainfall season started early in the southern districts of the country, but was late in the northern districts of the country. The first effective rainfall¹ heralding the start of the rainy season was received during the first week of November in the southern districts of the country. The remainder of the country received the first effective rainfall during the second and third week of November. Thus, the rainfall season started from the south moving to the northwest of the country, which is a normal progression. The heaviest rainfall (above 40 mm per week) was recorded in a belt stretching from the west (Tsholotsho) to the eastern districts of the country, also during November.

During December, most areas of the country received more than 40 mm per week, which was 50 percent above normal. Exception to this were Gwanda, Beitbridge, Zvishavane and Hwange districts that were relatively dry (receiving 80 percent of normal levels). Incessant and occasional heavy rainfall (over 100 mm per week), covering large areas, was received from the fourth week of December through to the end of January.

The heavy downpours were largely concentrated across the northern, central and eastern districts of the country, with the southern districts receiving less rainfall. At the beginning and towards the end of January, the southern and western areas received little or no rainfall at all as a result of weak high pressure systems that developed over South Africa and extended their influence into southern and western Zimbabwe.

The wet conditions continued in most areas up to mid-February, except for the southern and western districts, resulting in most of the country having one of its wettest seasons over the past 10 years. Thereafter, there was a marked reduction in rainfall intensity and coverage. Historically, the rains terminate as early as February in the South and mid-March to early April elsewhere. By mid- to late-March, the rainfall season ended across much of the country, the normal case. However, light rainfall continued in the extreme northeast of the country into early April, as is usual.

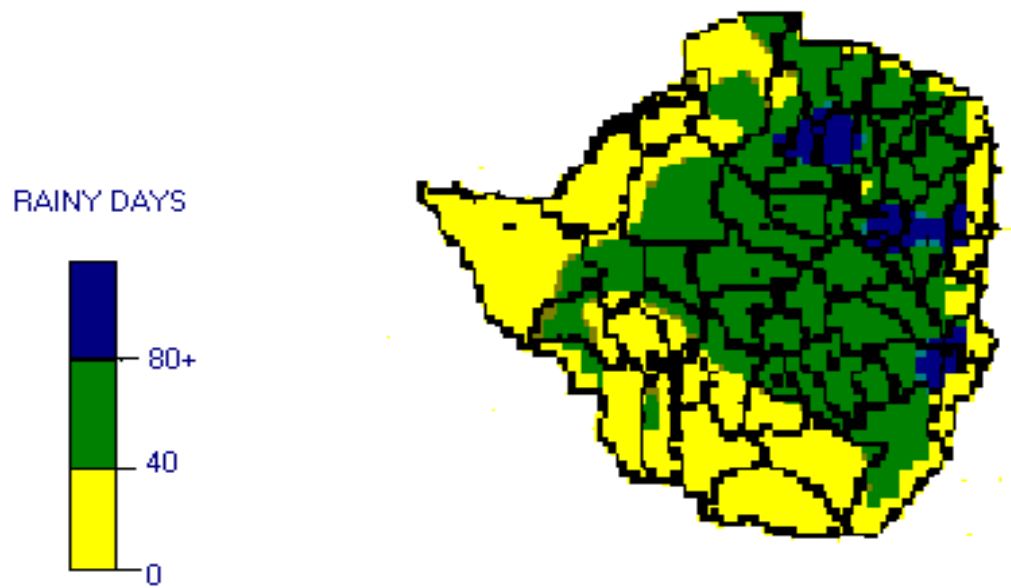
The distribution of the rainfall and the quality of the season can be qualified by looking at the number of rainy days across the country. A rainy day is defined as 0.3 mm or more per day². For most areas, it rained on half or more of the days in the rainy season. The number of rainy days decreased southwest and northwest (see Map 2 below). In the southern districts of the country, areas such as Mberengwa, Gwanda, Matopos and Zvishavane experienced prolonged dry spells, particularly during January and February. Areas that experienced flash floods and water logging included some parts of Dande and Muzarabani communal areas in the Zambezi valley, areas along Angwa, Manyame and Musengezi rivers, which are tributaries to the Zambezi River.

Rainfall Amount Received: By end of the season, more than 80 percent of the country had received well above average rainfall, of at least 600 mm. The amount of rainfall received was high in the northeastern districts, moving southwest with areas around Hwange and Bulawayo receiving less than 400 mm (see Map 3). These areas received the least amount of rainfall for the season and recorded amounts above 60 percent of their long-term average.

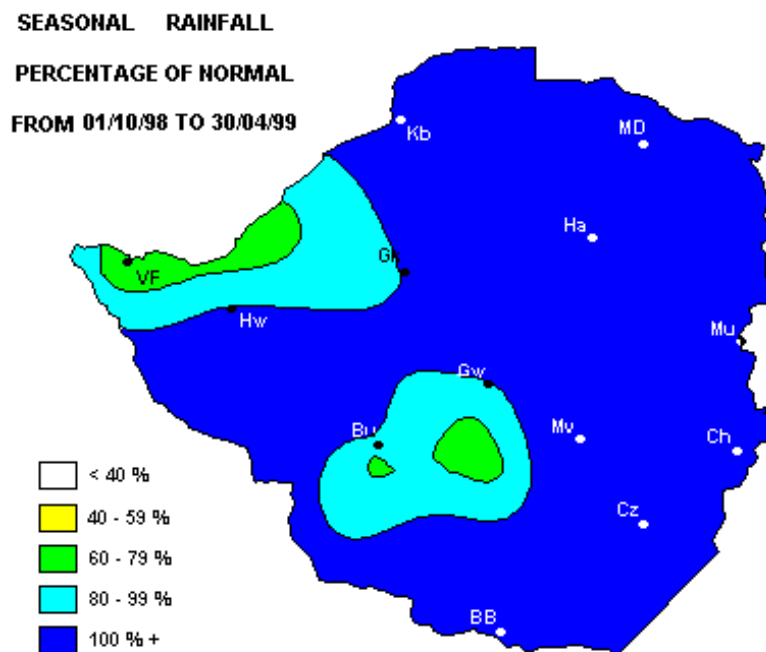
¹ Effective rainfall refers to over 15 mm of rainfall per day, which is followed, by consistent rainfall.

² Rainy day, as defined by the Meteorological Services (a meteorological accepted definition).

Map 2: The Number of rainy days recorded during the 1998/99 Rainfall Season



Map 3: Rainfall Received during 1998/99 as percentage of normal



Issued by the Rainfall Section - Department of Meteorological Services

II-B Seasonal Impact on Pastures and Agriculture

Pastures and Livestock: In response to the November rainfall, vegetation started greening from about mid-November. Heavy rainfall from December onwards resulted in a speedy improvement in vegetation throughout the country. However, the vegetation started drying off in the southern areas as the rains tapered off at the end of March. This drying gradually spread to the northern areas in April as is normal. Due to a good rainy season, pastures would be adequate until the next rainy season, except for some isolated overgrazed areas in the extreme south.

For livestock, the wet season resulted in high incidences of tick-borne diseases and foot rot due to ineffective dipping and muddy kraals. Water supplies for both human and livestock consumption is adequate, except in Matabeland South province. Most major dams across the country were full or held over 50 percent of their capacity by the end of the season in April 1999.

Crops: The good start to the 1998/99 rainy season raised farmers' hopes of a good cropping season and this encouraged them to put more land under crops. Cropped area during the 1998/99 production season was 12 percent more than that of 1997/98 and 6 percent more than the 1990's average. Area under grain crops for the 1998/99 season was 1,772,200 hectares, 17 percent higher than 1,517,000 hectares for 1997/98 season. Out of the total area under grain, 83 percent (1,467,000 ha) was planted in the communal area. However, due to seed shortages and excessive rains there was a reduction in the area planted under oilseeds (sunflower, soyabeans and groundnuts) by 5 percent (from 311,660 hectares to 297,550 hectares) and area under tobacco decreased by 8 percent. Table 1 below shows the cropped area this season compared to last season and the 1990s average.

Table 1: National Area Planted in 1998/99 compared to 1997/98 and the 1990s Average

CROP	Area planted in Ha			1998/99 as % change from	
	1998/99	1997/98	1990s Average	1997/98	1990s Ave
Maize	1446400	1223800	1285333	18%	13%
Sorghum	150200	140100	145226	7%	3%
Rapoko	43100	33600	75057	28%	-43%
Mhunga	132500	119500	162799	11%	-19%
Total Cereals	1,772,200	1517000	168415	17%	6%
Groundnuts	223500	190000	172694	18%	29%
Sunflower	22600	57500	116497	-61%	-81%
Soyabeans	51450	64160	55859	-20%	-8%
Cotton	330450	295000	252609	12%	31%
Tobacco	91275	98940	86991	-8%	5%
Total	2491475	2222600	2353065.72	12%	6%

Source : National Early Warning Unit

The above normal rainfall was generally interpreted to mean a good rainfall season, considering that in recent years the country has been receiving below average rains and experiencing serious droughts. However, for the low lying and sandy soil areas in the northern and eastern parts of the country, the season did not turn out to be as good as earlier envisaged due to excessive and incessant rains. In these areas, most crops, especially late planted maize, suffered from effects of flooding, waterlogging, overcast skies and nutrient leaching. In most areas, difficulties in farm operations such as weeding, chemical spraying and fertilizer application were experienced, resulting in a significant reduction in yields for most crops.

Dry weather was experienced in parts of Matabeland and Midlands provinces. Poor crop emergence, due to inadequate soil moisture and compacted soils, was experienced in some areas, while frequent long dry spells negatively impacted on the final crop yields. A complete crop failure was reported for maize in some areas, such as Hwange.

SECTION III: FOOD AVAILABILITY

Section Objectives:

- *Identify amounts of food that will be available at the national level from stocks, production, and net imports during the current consumption year from 1 April 1999 to 31 March 2000. Compare them to consumption requirements, and to average or reference periods.*
- *Analyse government policies or other factors affecting availability.*
- *Identify any geographic areas where problems of poor availability will unlikely be resolved by market mechanisms.*

III-A. National Cereal Production

Most of the grain production in Zimbabwe is weather driven and hence varies with the quality of the rainfall season. In poor rainfall seasons (below normal, too wet and unevenly distributed rainfall), the maize and millets production goes down. The 1998/99 production season, because it was exceptionally wet, ranks among the poor production years, but better than the El Nino induced droughts of 1982/83, 1986/87, 1991/92, 1994/95 and 1997/98 production years.

The total cereal production for the 1998/99 season was 1.95 million tons. This figure is 4 percent more than the 1997/98 output, 27 percent less than the 1996/97 output (the best year this decade) and 4 percent and 19 percent less than the 1990s and 1980s averages respectively. The 1998/99 production was 41 percent lower than the maximum production ever achieved in the 1990s, which was 2,609,000 tons in 1995/96. The increased production from the 1997/98 output was attributed to the 17 percent increase in area planted since the 1998/99 average yield was 9 percent lower than that of 1997/98. This reduction in yield was caused by a poor season as described in Section II. The shortage of Ammonium Nitrate fertilizer, difficulties in weed, pests and diseases control further worsened the situation.

However, some parts of the country, that are usually dry (e.g. Mwenezi, Chiredzi and some parts of Chivi districts) received enough rainfall to boost their yield in 1998/99 compared to previous seasons. Yields in the large-scale commercial sector were not seriously affected compared to the smallholder sectors. Good production in the above areas compensated for poor harvests in other areas resulting in increased national production compared to the 1997/98 season (see Table 2 below).

Table 2: Time-Series Comparison of All-Sectors (communal, resettlement, small-scale and large-scale commercial) Cereal Production (MT)

	Maize	Sorghum	Mhunga (Pearl Millet)	Rapoko (Finger Millet)	Wheat	Total Cereals
1998/99	1519560	85600	53000	17240	320000	1995400
1997/98	1466380	65040	29875	10080	300000	1871375
1996/97	2192170	130068	68235	20021	270000	2680494
80's Average	1929490	96110	104265	62861	213910	2406636
90's Average	1652451	77425	52020	29557	217402	2028855
1998/99 as % of 80s average	79	89	51	27	150	83
1998/99 as % of 90s average	92	111	102	58	147	98
1998/99 as % of 1996/97	69	66	78	86	119	74
1998/99 as % of 1997/98	104	132	177	171	107	107

Note: 1998/99 wheat harvest is an estimate since the crop is being harvested.

Source: NEWU

In the communal sector, there was an increase in cereal production in 1998/99 of 16 percent from the 1997/98 season due to an 18 percent increase in area planted. The 1998/99 communal production is 34 percent lower than that of 1996/97, 10 and 21 percent lower than the average production for the 1990s

and 1980s, respectively (see Table 3 below). The decrease in 1998/99 production from the 1996/97 season is attributed to lower yields.

Table 3: Time-Series Comparisons of Communal Area Cereal Production (MT)

	Maize	Sorghum	Mhunga (Pearl Millet)	Rapoko (Finger Millet)	Total Cereals
1998/99	755300	70000	52000	14000	891300
1997/98	676900	52000	29000	7500	765400
1996/97	1157400	108240	66000	15000	1346640
80's Average	888246	71490	101829	61588	1123153
90's Average	846822	55321	58248	29937	990328
1998/99 as % of 80s average	85	98	51	23	79
1998/99 as % of 90s average	89	127	89	47	90
1998/99 as % of 1997/98	112	135	179	187	116
1998/99 as % of 1996/97	65	65	79	93	66

Source: NEWU

III-B. National Cereal Supply Situation for the Current Consumption/Marketing Period (1999/2000)

Population: The country's mid 1999/2000 marketing/consumption period population is estimated at 12,882,024. The population figures have been calculated using a national population growth rate of 3.1 percent per annum, derived from the 1982 and 1992 population censuses.

The Zimbabwe Cereal Balance Sheet is not healthy, with a domestic deficit of more than a million tons, at the end of the marketing year in March 2000. This deficit is made up of 797,000 mt of maize, millets and sorghum, 188,000 mt of wheat and 380 mt of rice. However, if more imports are made to cover the deficit and reconstitute the SGR to the desired level, the cereal deficit at the end of the marketing year will be reduced to 285,000 mt (see Table 4 below).

Table 4: Zimbabwe Cereals Balance Sheet (MT) for the Consumption Period 1 April 1999 to 31 March 2000

	Maize	Millets	Wheat	Rice	All Grain
A. Potential Domestic Availability	1,592,770	160,324	379,204	7,031	2,139,329
A1 Formal Opening Stocks (April 99) (estimate)	7,317	28	59,204	7,031	73,580
A2 Gross Harvest Production	1,519,560	155,840	320,000	-	1,995,400
A3 Unmonitored Stocks : Farmers & Millers (estimate)	65,893	4,456	-	-	70,349
B. Annual Domestic Requirements	2,521,461	228,012	560,697	12,753	3,322,923
B1 Gross Consumption Requirement ⁴	1,532,961	228,012	360,697	12,753	2,134,423
B2 Livestock, other uses and losses	460,000	-	-	-	460,000
B3 Strategic Reserve Requirement	500,000	-	200,000	-	700,000
B4 Millers Minimum Operating Stocks (est)	28,500	-	-	-	28,500
C. Domestic Balance (A - B)	(928,691)	(67,688)	(181,493)	(5,722)	(1,183,594)
D. Cross Substitution ²	(67,688)	67,688	-	-	-
E. Cereal Exports likely	(187)	-	(20,000)	-	(20,187)
F. Cereal Imports planned	200,000	-	13,500	5,324	218,842
G. Forecasted Uncovered Imports/Exports (March 2000) ³	(796,566)	-	(187,993)	(380)	(984,939)
H. Forecasted Closing Stocks (March 2000)	(296,566)	-	12,007	(380)	(284,939)

¹ Based on the 1998/99 consumption period status quo human consumption per capita.

² The amount of small grains shortfall which can be substituted by maize.

³ Refers to the deficit or surplus, which remains after exports and imports are carried out.

Notes:					
1	Est. mid-year population	12,882,024	12,882,024	12,882,024	12,882,024
2	Est. Human Annual Consumption Req ¹ . (kg)	119	18	28	166

Source: NEWU and FEWS

Maize: Total available maize grain for the 1999/2000 marketing year is about 1.59 million tons. This is comprised of the estimated production of 1.520 million tons and carry-over stocks of about 73,000 tons from the 1998/99 marketing year. The total maize requirement, based on mid-marketing year population figures, is estimated at about 2.521 million tons. The total national requirements for maize are made up of 1.532 million tons of human consumption requirements, 500,000 tons of physical Strategic Grain Reserves, 460,000 tons for livestock feed and other uses, and 28,500 tons of millers minimum operating stocks. All these requirements result in a maize deficit of 928,691 tons.

The addition of 68,000 mt cross-substitution of maize to cover a shortfall in the small grains increases the domestic maize grain deficit to over a million tons before imports are considered. Given the Government's committed imports of 200,000 mt of maize, including the outstanding figure of 69,281 tons from the 1998/99 consumption period, the maize deficit is reduced to 796,566 mt. Even if the Government manages to import 500,000 mt of maize for the physical Strategic Grain Reserve (SGR), the country will still need to import about 296,000 tons to meet the national requirements.

Millets: The supply and demand for sorghum and millets shows a shortfall of 67,688 tons (see Table 4 above). Since small grains are easily substituted by maize, the deficit of millets can be covered by additional consumption of maize provided an offsetting volume of maize is imported.

Wheat: Total available wheat for the 1999/2000 marketing year is estimated at 379,204 tons (see Table 4 above). This is made up of 59,204 tons carried over from the previous marketing year and an expected gross harvest production of 320,000 tons mainly from the large-scale commercial farmers (in late 1999). The increased harvest of wheat is largely due to the increase in area planted to 57,000 ha from 50,000 ha last year and availability of more water for irrigation. The annual requirement is estimated at 560,697 tons, leaving a shortfall of 181,493 tons. Part of the shortfall will be met through importation of high quality wheat by private traders to blend with the local product.

Rice: The 1999/2000 marketing year annual requirement for rice is estimated at 12,753 tons. About 7,031 tons were carried over from the previous marketing year. Imports are required to cover the shortfall of 5,722 tons. This shortfall would be covered through imports by GMB and the private sector. A substantial quantity of rice is also available in the small holder sector, because some farmers planted rice when they realized that the season was exceptionally wet. However, the amount of small holder rice is difficult to quantify and is mainly used for domestic consumption.

III-C. National Trends in Cereal Availability/Balance Since 1991/92

Zimbabwe's domestic balance (cereals available less domestic requirements) has been decreasing, indicating that the country is slowly moving from being a net exporter to an importer of cereals. The decrease is attributed to a decrease in production and stocks over the years (see Table 5 below).

Stocks: The formal or monitored stocks are comprised of the GMB stocks. The un-monitored stocks are an estimate of what farmers, private traders and millers have in store at the beginning of the marketing year. The formal opening stocks available for the current consumption period (1999/2000), are about 77 percent less than the previous period and also less than the formal opening stocks of the 1992/93 consumption period which followed the devastating drought in the 1991/92 production season. The unmonitored carried over stocks for the current consumption period are also less than the previous year's

⁴ Product of human requirements and population.

stocks. The low carry over stocks could be due to the low harvest experienced in the 1997/98 production season which was affected by the El-Nino induced drought, the drawing down of the SGR under Government's Grain Loan Scheme and also the difficulties of estimating grain trader volumes at the beginning of the marketing year.

Table 5: Comparison of Cereal Balance Sheets ('000 MT) from 1991/92 to 1999/2000 Consumption Periods

	99/2000	98/99	97/98	96/97	95/96	94/95	93/94	92/93	91/92
A. Annual Domestic Availability	2,139	2,362	3,338	3,157	2,355	3,949	2,896	625	2,465
A1. Formal Opening Stocks (April 1)	74	327	633	50	970	1,000	698	207	689
A2. Gross Harvest Production	1,995	1,871	2,660	3,087	985	2,549	2,198	418	1,776
A3. Unmonitored Stocks	70	164	45	20	400	400	0	0	0
B. Estimated Annual Domestic Consumption	3,323	3,245	3,676	3,491	3,730	3,636	3,375	3,167	3,230
B1. Estimated Gross Consumption	2,134	2,074	2,487	2,411	2,334	2,266	2,355	2,247	2,250
B2. Normal Strategic Reserve	700	700	700	600	936	900	500	500	500
B3. Millers Minimum Operating Stocks	29	11	29	0	0	0	0	0	0
B4. Livestock, other uses and losses	460	460	460	480	460	470	520	420	480
C. Domestic Balance (A - B) = import requirements	-1,184	-883	-338	-334	-1,375	313	-479	-2,542	-765
D. Imports Received	219	489	127	172	482	245	421	1,845	200
E. Exports Moved	20	-271	-288	-298	-66	-583	0	0	-209
F. Uncovered Import/Exports	-985	-665	-499	-460	-959	-25	-58	-697	-774
G. Unbalanced Cereals ²	0	80	290	538	93	495	958	895	481
H. Closing Stocks (March 31)	-285	115	491	678	70	1,370	1,400	698	207
Population (000s)	12882	12495	12119	11750	11397	11054	10722	10400	10078
Annual Status Quo Consumption ³		2465	2686	2353	2701	2241	1917	1772	2249

Source: NEWU/FEWS

Imports/Exports (Cereal Imports and Exports): Zimbabwe is often a net exporter of maize and a net importer of wheat and rice. Trade in other grains is usually limited. Over a million tons of cereals need to be imported in order to meet the 1999/2000 consumption period requirements, if the SGR is to be increased to required levels this marketing/consumption year. The current marketing year has very high import requirements compared to previous years, except in 1992/93 and 1995/96 marketing years. In most years, Zimbabwe does not import enough cereals to cover the deficit as indicated by the high figures of uncovered imports. This could be a result of large volumes of unaccounted for cereals on an annual basis, which is indicated, by the unbalanced cereals (see Table 5).

Estimated Gross Consumption: The time-series of the gross cereal consumption shows a decline from earlier levels between 1991/92 and 1994/95, a relatively static period from 1994/95 to 1996/97, and then a decline starting in 1997/98. The trend of reduced cereal consumption over the years could be attributed to increased costs of cereals, and a substitution of cereals for other foods like potatoes, as a result of changes in diet patterns, especially in urban areas.

² (G) Unbalanced cereals arise from the difference between the official opening and closing stocks of the preceding year. The grain could have been consumed and sometimes can not be accounted for because of data problems.

³ Status Quo consumption refers to the estimated cereals available and consumed in the previous year(s).

III-D. Sub-National Cereal Availability

Liberalisation of grain trade in the early 1990s has resulted in a general increase in movement of grain from surplus areas to deficit areas, by private traders. This trade usually occurs between the surplus areas such as Gokwe, Nkayi, Shurugwi and Gweru and deficit areas of Matabeleland South, Manicaland (southern districts), and Masvingo (southern districts) provinces. Yet, some of the usually surplus areas have little surplus this year causing problems on food availability in those areas and their dependent deficit areas. Grain movement from the surplus areas to urban areas, where there is increased demand and ready cash, could worsen cereal availability in some deficit or poorer communal areas. However some of the traditionally deficit areas have adequate supplies or little surplus, such as Chiredzi, Chivi and Mwenezi, thereby increasing food availability in those areas.

Grain is not available in parts of some communal areas due to relatively poor development of markets, even if the district has a surplus.

III-E. Summary of National Cereal Availability

At national level, maize available from the 1998/99 harvest, imports and the stocks from other sources (existing on-farm and strategic reserve) as at the end of September 1999, are sufficient to meet the country's consumption requirements until about mid-February 2000. Additional imports will push this date closer to March 31, 2000, the end of the consumption period.

SECTION IV: SUB-NATIONAL FOOD ACCESS

Section Objectives:

- Document and compare the performance of each income source, compared to the 1990s average and last year.
- Assess people's ability to meet their annual food requirements through all measurable income-generating strategies (own production, market purchases, gifts, and other transfers)
- Define information gaps that make these assessments less reliable.

IV-A Retained Stocks: Performance and Trends

Estimated Official Reserve: In the 1995/96, 1997/98 and 1998/99 consumption periods, communal areas, benefited from official stocks (The Strategic Grain Reserve (SGR)) through the Grain Loan Programme (GLP), which was suspended by Government end of March 1999. At the start of the 1999/2000 consumption year, the SGR was depleted making it impossible for Government to utilize this source to supplement household supplies of those farmers whose food harvests were low in the 1998/99 production season. In general, the share of the SGR stocks to total grain available has also been declining (from 26 percent in the 1980s to 20 percent in the 1990s). Maize, which contributes 83 percent on average of the reserves, has also decreased in amount. This decrease is attributed to shift in Government Policy. With the market liberalization under Economic Structural Adjustment Program in 1992, government decreased the physical target stocks in the SGR, from 925,000 Mt to below 500,000 Mt of maize. The reduction is also attributed to generally poor production and inability of the Grain Marketing Board (which holds the stocks) to compete for maize in a liberalized market without the autonomy to adjust its buying and selling prices. As official stocks continue to decrease, the role of government in food security as a reserve holder will become reduced.

Household Retained Stocks: As of April 1, 1999, the national communal area unmonitored carryover stocks for all cereals were estimated at 41,849 mt. Some of the stocks available in communal areas as of April 1, 1999 came from the SGR in form of GLP. Maize contributed 37,393 mt or 89 percent of the total grain stocks retained in the communal areas. The communal sector carryover stocks contribute 6.2kgs per capita to the total amount of grain available in the sector this consumption period compared to 8 kgs per capita last year (see Table 6). These stocks were poorly spread among the communal lands, of which 76 of the 174 communal lands did not have any carryover stocks -especially communal lands in Matabeleland South, Midlands and Mashonaland West (Appendix B).

Table 6: Communal Area Carryover Stocks (mt) from 1998/99 Marketing Year

	Carryover stocks				Carryover Total ton	Pcap Carryover kgs
	Maize ton	Sorghum ton	Rapoko ton	Mhunga ton		
Manicaland	4107.7	335	392	456	5291	4.9
Mashonaland Central	13060.8	33	0	0	13094	16.7
Mashonaland East	5916.9	100	94	31	6143	6.8
Mashonaland West	2558.1	11	4	11	2583	5.2
Masvingo	2390.0	130	479	51	3050	3.0
Matabeleland North	1057.3	349	0	827	2233	3.7
Matabeleland South	496.5	520	4	456	1477	3.0
Midlands	7806.2	85	54	33	7977	5.8
National	37393.4	1563	1027	1866	41849	6.2

Source: National Early Warning Unit

Staple Crops - Context: Level of Sufficiency

Maize, the major staple crop is grown almost throughout the country even in the southern districts of the country where it cannot be produced successfully. The second staple crops especially in the drier agro-ecological zones in the south, west and north of the country are millets and sorghum, which normally supplement maize in the diet in most of these areas.

Wheat is grown mostly by large-scale commercial farmers under irrigation and is only available to consumers as bread. Hence, this crop does not play an important direct role in the diet of the majority of consumers who reside in the communal areas in Zimbabwe. The analysis will not consider it in assessing food security at communal area level.

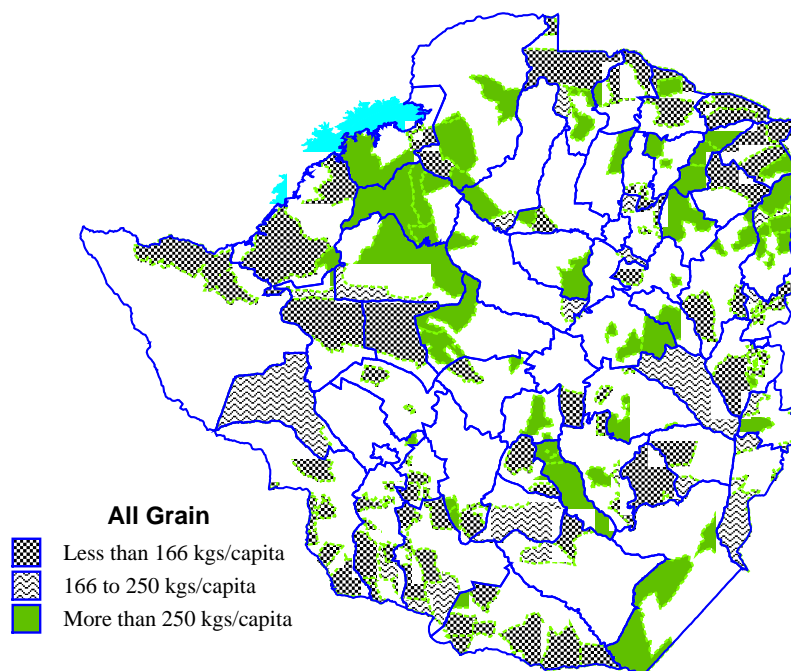
Total grain production in 1998/99 season was estimated at 1,675,400 mt (excluding wheat), of which 53 percent was produced by the communal sector alone. The 1998/99 communal grain harvest was equivalent to 256 kgs per capita, which is higher than 1997/98 average harvest of 194.4 kgs per capita, but below the 1990s average of 318 kgs per capita. Grain production in the 1990s has been on the decline compared to the 1980s.

Maize: Of the 1,942,238 ha planted to crops in the communal sector, 59.8 percent (1,162,000 ha) was planted to maize in 1998/99 production season. The area planted to maize in the communal sector increased by 9 percent from 1,057,000 ha planted in the 1997/98 production season. Per capita maize production for the sector equaled 214 kgs, 23 percent higher than the 1997/98 production season figure of 165.1 kgs per capita, and 14 percent more than the 1990s average harvest of 188 kgs per capita. About 65 communal areas experienced a decrease in their per capita maize harvest compared to the 1997/98 production season and 81 communal areas experienced a decrease in per capita maize harvest compared to the 1990s average. The most affected districts were Mberengwa, Gokwe South and Shurugwi in Midlands Province, Nkayi Tsholotsho and Umguza in Matabeleland North Province, Masvingo and Gutu in Masvingo Province, Kadoma in Mashonaland West, Mazowe in Mashonaland Central, and Murehwa in Mashonaland East Province. These districts saw their maize per capita production decrease by more than 80 percent compared to the 1990s average (see Map 5 and Table 7 below).

Millets and Sorghum: A total of 325,000 ha were planted to sorghum and millets in the 1998/99 season. Of this 305,000 ha (94 percent) were in the communal sector. The area planted to sorghum and millets increased by 10 percent compared to the 1997/98 production season, but is 23 percent less than the 1990s average. Sorghum and millet production in 1998/99 was estimated at 136,000 mt for the communal sector. This represents a 34 percent increase from 1997/98 harvest and about 12 percent decrease from the 1990s average. The per capita sorghum and millets production was recorded at 34 kgs, higher than the 1998 harvest of 18 kgs per capita and almost equivalent to the 1990s average (see Table 7).

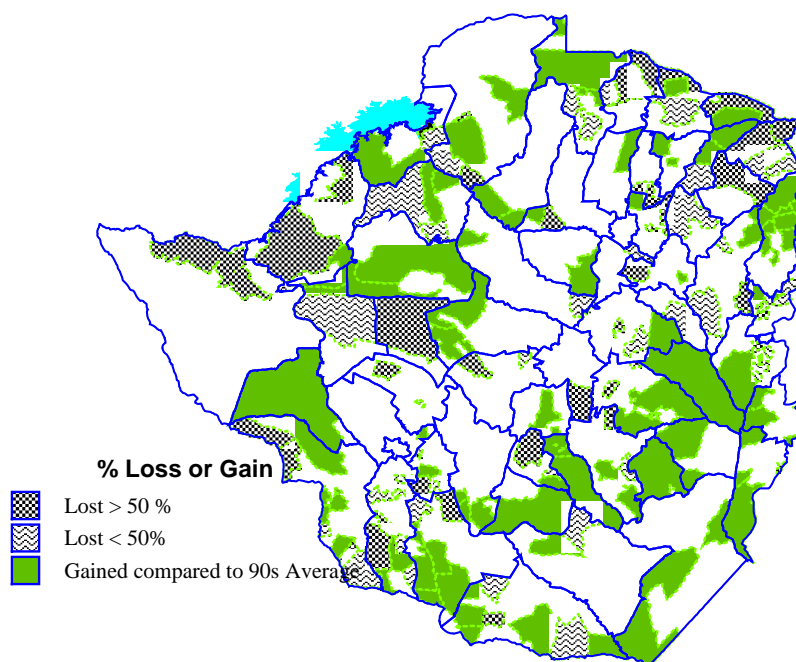
Food Access from Grain Crop Production: At least 91 Communal Lands (63 percent of the communal areas) can meet the minimum grain consumption threshold of 166 kgs per capita from grain production and carryover stocks in the 1999/2000 consumption period. These communal areas are scattered in all provinces. Of these, 62 communal areas meet the minimum food security threshold of 250 kgs per capita. This number meeting the minimum food security threshold is 29 percent higher than the 48 communal areas in 1998/99. Significant increases were experienced in the two Matabeleland provinces.

Map 4: Communal Areas Per Capita Grain Production in 1998/99



Source: NEWU/FEWS

Map 5: Comparison of 1999 Per Capita Grain Production to the 1990s Average



Source: NEWU/FEWS

Matebeleland North registered 112 kgs per capita higher than the 1990s average of 108 kgs and last year's 77 kgs per capita, whilst Matebeleland South got 120 kgs per capita, more than doubling last year's level and 56 percent higher than the 1990s average. At least 5 communal areas in Matebeleland South Province, which is normally prone to grain shortfalls, can meet the minimum food security threshold from

own grain production. Compared to the 1990s average, per capita grain production has decreased in Mashonaland East and Central and Midlands provinces, whilst it increased in the remaining provinces. At least 55 communal areas did not achieve 100 kgs per capita of grain for the 1999/2000 consumption period. This figure is much less compared to the 81 communal areas last year (see Appendix C, Table 7 and Map 4).

Table 7: Summary of per Capita Maize Equivalent Income from Grain Crops (kgs/capita)

Rank	Province	District	Communal Area	Maize	Millet	Dryland Grain	Carryover Stocks	Irrigated Grain	All Grain Crops
The 20 Communal Areas with the Highest Per Capita Maize Equivalent Income									
1	Mashonaland West	Kariba	Omay CL	999	437	1435	0	0	1435
2	Mashonaland East	UMP	Pfungwe CL	1073	80	1153	13	1	1166
3	Mashonaland West	Hurungwe	Mukwichi CL	1063	4	1066	0	0	1066
4	Mashonaland West	Chegutu	Mhondoro CL	922	5	927	0	6	933
5	Mashonaland East	UMP	Maramba CL	732	42	774	18	0	793
6	Matabeleland South	Insiza	Glassblock CL	622	117	739	0	0	739
7	Mashonaland West	Hurungwe	Hurungwe CL	711	1	712	0	0	712
8	Mashonaland West	Zvimba	Chirau CL	602	1	603	53	0	656
9	Matabeleland South	Insiza	Insiza CL	405	210	615	0	4	619
10	Mashonaland West	Hurungwe	Piriwiri CL	607	5	612	0	0	612
11	Matabeleland North	Umguzo	Ntabazinduna CL	572	6	578	0	0	578
12	Mashonaland Central	Shamva	Bushu CL	496	4	500	77	0	577
13	Manicaland	Nyanga	Sawunyama CL	489	11	500	63	0	563
14	Mashonaland East	Chikomba	Save North CL	502	22	523	15	1	539
15	Mashonaland West	Kadoma	Sanyati CL	530	7	538	0	0	538
16	Mashonaland East	UMP	Uzumba CL	457	63	520	17	0	537
17	Manicaland	Buhera	Save CL	169	59	227	6	7	468
18	Mashonaland Central	Mazowe	Chiweshe CL	517	1	518	0	1	519
19	Manicaland	Chimanimani	Muwushu CL	399	63	463	0	46	508
20	Manicaland	Makoni	Tanda CL	368	102	470	2	0	472
The 20 Communal Areas with the Lowest Per Capita Maize Equivalent Income									
1	Matabeleland South	Bulilimangwe	Ingwezi CL	11	31	42	5	0	47
2	Manicaland	Mutasa	Holdenby CL	39	1	40	6	0	46
3	Matabeleland South	Bulilimangwe	Sansukwe CL	4	41	45	1	0	46
4	Matabeleland South	Bulilimangwe	Mpimbila CL	10	26	36	5	0	41
5	Mashonaland Central	Centenary	Mukumbura West CL	38	1	39	0	0	39
6	Matabeleland South	Matobo	Semukwe CL	5	21	26	11	1	39
7	Matabeleland South	Beitbridge	Diti CL	17	19	36	0	0	36
8	Matabeleland South	Beitbridge	Siyoka CL	2	31	34	0	0	34
9	Mashonaland Central	Mount Darwin	Mukumbura East CL	32	1	33	0	0	33
10	Matabeleland North	Binga	Manjolo CL	17	16	33	0	0	33
11	Matabeleland South	Matobo	Tshatshani CL	14	8	22	10	0	32
12	Matabeleland South	Umzingwane	Mzinyatini CL	25	0	25	0	2	27
13	Manicaland	Chipinge	Tamandayi CL	25	0	25	1	0	26
14	Mashonaland Central	Centenary	Muzarabani CL	26	0	26	0	0	26
15	Midlands	Gweru	Manyame CL	22	0	22	0	4	26
16	Matabeleland South	Bulilimangwe	Ramakwebane CL	4	8	12	6	0	19
17	Mashonaland Central	Mount Darwin	Masoso West CL	14	4	18	0	0	18
18	Matabeleland North	Hwange	Hwange CL	4	11	14	1	0	15
19	Matabeleland North	Binga	Siabuwa CL	5	1	6	0	1	7
20	Mashonaland West	Kariba	Gatshe Gatshe CL	0	0	0	0	0	0

IV-C Cash Crop Production Trends

The major cash crops grown widely in Zimbabwe include tobacco, flowers, vegetables, fruits, cotton, soyabeans, groundnuts, sunflower, sugar cane, coffee, tea and paprika. Some of the cash crops such as tobacco, coffee, sugar cane and tea are mainly grown on commercial farms. There has been a general decrease in cotton, sunflower and virginia tobacco production in the past 3 years. However, cotton

production in 1998/99 reached one of the highest levels in the 1990s only surpassed by levels of the last two seasons. Sunflower production has decreased to the lowest level since the late 1980s. Virginia tobacco production is among the lowest 3 levels in the 1990s only surpassing the 1990/91 and 1993/94 production. A notable increase occurred in groundnut production in 1998/99, which is the second highest in the 1990s and is only surpassed by the 1996/97 production of 152,970 mt. In the last 5 years, soyabeans production has almost stabilized at around 100,000 mt, whilst oriental, burley and other tobacco has decreased slightly (see Table 8 below).

Table 8: Cash Crop Production Comparison in mt

Production Season	Cotton	Groundnuts	Sunflower	Soyabean	Burley Tobacco	Virginia Tobacco	Paprika
1998/99	264,980	113,250	12,855	107,178	7,113	186,070	8,366
1997/98	272,850	59,700	22,175	110,912	7,785	218,270	
1996/97	278,184	152,970	33,670	100,424	6,842	486,040	
1990's Average	200,911	76,830	40,797	89,895	9,946	232,933	
1980's Average.	229,353	84,941	28,575	94,725	3,960	110,228	
1998/99 as % 90's Ave	132	147	32	119	72	80	
1998/99 as % 197/98	97	190	58	97	91	85	

Source: NEWU

Of the cash crops grown in the country, cotton, groundnuts, sunflower, and of recent paprika, contribute directly to the food security in communal areas. Some of these crops provided more maize equivalent income (MEI) in 1999/2000 compared to last year and the 1990s average. This is explained by the increase in the producer price of most of the cash crops, which match or exceed that of maize. The price of cotton and sunflower increased by more than 100 percent compared to the 75 percent for maize.

Cotton: Of the 330,450 ha under cotton, 76 percent was planted in the communal sector producing 64 percent of the crop in 1998/99 production season. The contribution of cotton to per capita maize-equivalent income in 1999/2000 was 160.1kgs, which is higher than last year's MEI of 91 kgs per capita and the 1990s average of 106 kgs per capita. At least 41 communal areas obtained more than 100 kgs per capita MEI from cotton in 1999/2000, slightly higher than last year's 32 communal areas. Of these, 23 communal areas realized the minimum food security threshold of 250 kgs per capita from cotton alone. Most of these communal areas are in Mashonaland West and Central, and Midlands provinces.

Groundnuts: A total of 223,500 ha were planted to groundnuts in 1998/99 cropping season, the highest area under the crop in the 1990s. Of this, 89 percent was planted in the communal sector. Despite a record area, and one of the highest harvests of 100,000 mt in the 1990s, the contribution of groundnuts to per capita MEI was reduced due to the low increase in the producer price of groundnuts relative to that of maize. In the 1999/2000 marketing year, the contribution of groundnuts to the communal per capita MEI dropped to 14.3kgs compared to 19 kgs per capita last year. In 1999/2000 consumption period, only 6 communal areas will receive more than 50 kgs per capita MEI from groundnuts production compared to 18 communal areas last year.

Sunflower: The area planted to sunflower reached a record low of 22,600 ha in 1998/99 production season due to the incessant rainfall and shortage of seed. Production was at its lowest level in the 1990s. The communal sector planted 66 percent (15,000) ha of the area, producing 7,500 mt. This represents 58 percent of the crop. Despite the reduction in area planted, the increase in the price of sunflower by 173 percent from last year contributed to an increase in per capita maize-equivalent income to 2.8 kgs from 1.6 kgs per capita. Yet, the contribution of sunflower to MEI is limited, with only 9 communal areas receiving more than 10 kgs per capita MEI from sunflower in the 1999/2000 consumption period compared to 7 communal areas last year.

Other cash crops: The contribution of tobacco, soyabeans, paprika and edible beans to food security is limited to a few communal areas. The only major benefit to the communal sector comes indirectly as

remittances from casual labour as communal farmers work on commercial farms. Only 43 communal areas, mainly in Mashonaland West, and Central and Manicaland provinces grew tobacco in 1998/99. Out of these, only 11 communal areas derived more than 20 kgs per capita from tobacco and of these, about 3 communal areas in Hurungwe and Mazowe districts realized more than 50 kgs per capita MEI from the crop.

Almost all communal areas grow edible beans on a small scale, which contribute to food security normally as a relish. However, only 12 communal areas realized more than 20 kgs per capita MEI from beans in 1998/99. Soyabean and paprika are other cash crops, which have recently expanded into the communal sector but do not take up a large area. Of the 115,544 ha grown to the crops in all sectors in the 1998/99 season, only 5 percent of the area was planted in scattered communal areas. This contributed 0.8 kgs per capita MEI.

Summary of Cash Crops Performance: Roughly, half of the communal areas (93 out of 174) did not receive much contribution from cash crop production for their food security as these crops provided less than 50 kgs per capita MEI in the 1999/2000 consumption period. Of the remaining communal areas, 50 obtain more than 100 kgs per capita MEI from cash crops. A total of 28 communal areas, will meet their minimum food security threshold of 250 kgs per capita from cash crop production compared to 17 communal areas in 1998/99. This represents a 65 percent increase. Like last year, most of these communal lands in 1999/2000 are located in the cotton growing areas of Manicaland, Midlands, Mashonaland East, West and Central Provinces (see Table 9).

Table 9: Summary of Per Capita Maize-Equivalent Income from Cash Crops (kgs/capita)

Rank	Province	District	Communal area	Cotton	Tobacco	Groundnut	Soyabean	Sunflower	Beans	Total
The 20 Communal Areas with the Highest Per Capita Food Access from Cash Crops										
1	Mashonaland West	Hurungwe	Piriwiri CL	2581	91	2	5	16	1	2696
2	Mashonaland West	Kadoma	Sanyati CL	1384	0	23	0	6	0	1413
3	Mashonaland Central	Mount Darwin	Chiswiti CL	1061	0	6	0	0	0	1067
4	Midlands	Gokwe North	Sebungwe CL	1025	0	16	0	0	0	1042
5	Mashonaland East	UMP	Maramba CL	911	0	23	0	9	1	943
6	Mashonaland West	Hurungwe	Mukwichi CL	734	111	9	17	2	5	878
7	Mashonaland West	Hurungwe	Hurungwe CL	806	42	4	3	9	1	864
8	Mashonaland East	UMP	Pfungwe CL	820	0	17	0	3	0	840
9	Midlands	Gokwe South	Gokwe (new) CL	792	0	21	0	2	1	816
10	Midlands	Gokwe North	Gandavaroyi CL	725	0	42	0	1	0	768
11	Mashonaland Central	Guruve	Dande South CL	708	1	3	0	2	0	714
12	Midlands	Gokwe North	Goredema CL	686	0	25	0	2	0	713
13	Midlands	Gokwe North	Chireya/Chirisa	688	0	9	0	0	0	698
14	Mashonaland West	Hurungwe	Nyaodza CL	578	22	0	1	7	2	611
15	Mashonaland West	Makonde	Mupfure CL	576	0	1	0	2	0	579
16	Mashonaland West	Kariba	Kanyati CL	484	47	5	0	0	0	536
17	Midlands	Kwekwe	Zhombe CL	378	0	10	0	18	0	406
18	Manicaland	Chipinge	Ndowoyo CL	392	0	0	0	1	0	393
19	Mashonaland Central	Mount Darwin	Kandeya CL	356	22	1	0	0	0	380
20	Mashonaland Central	Centenary	Gutsa CL	372	0	3	0	1	0	375
The 20 Communal Areas with the Lowest Per Capita Food Access from Cash Crops										
1	Matabeleland South	Beitbridge	Diti CL	0	0	2	0	0	0	2
2	Matabeleland South	Beitbridge	Mtetengwe CL	0	0	2	0	0	0	2
3	Matabeleland South	Matobo	Tshatshani CL	0	0	0	0	0	1	1
4	Matabeleland North	Bubi	Inyathi CL	0	0	0	0	1	0	1
5	Matabeleland North	Hwange	Hwange CL	0	0	0	0	0	1	1
6	Matabeleland South	Beitbridge	Chipise CL	0	0	1	0	0	0	1
7	Matabeleland South	Bulilimamangwe	Ramakwebane	0	0	0	0	0	0	1
8	Matabeleland North	Binga	Manjolo CL	1	0	0	0	0	0	1
9	Matabeleland South	Bulilimamangwe	Mpimbila CL	0	0	0	0	0	0	1
10	Matabeleland South	Beitbridge	Machuchuta CL	0	0	0	0	0	0	0
11	Matabeleland South	Beitbridge	Siyoka CL	0	0	0	0	0	0	0
12	Matabeleland South	Umzingwane	Mzinyatini CL	0	0	0	0	0	0	0
13	Matabeleland South	Beitbridge	Dendele CL	0	0	0	0	0	0	0
14	Matabeleland South	Gwanda	Makwe CL	0	0	0	0	0	0	0
15	Manicaland	Chimanimani	Chikukwa CL	0	0	0	0	0	0	0
16	Mashonaland West	Kariba	Gatshe Gatshe	0	0	0	0	0	0	0
17	Matabeleland South	Beitbridge	Maramani CL	0	0	0	0	0	0	0
18	Matabeleland South	Beitbridge	Masera CL	0	0	0	0	0	0	0
19	Matabeleland South	Umzingwane	Esiphezini CL	0	0	0	0	0	0	0
20	Midlands	Gweru	Manyame CL	0	0	0	0	0	0	0

Irrigated Crops: The contribution of irrigated crops to communal food security in the 1999/2000 consumption period is estimated at 5.1 kgs per capita, higher than 3 kgs per capita in the 1998/99 consumption period but lower than the 1990s average of 6 kgs per capita. A total of 69 communal areas have access to government and private irrigation land. Of these, only 15 irrigation schemes mainly in Matabeleland South and Manicaland Provinces obtain at least 20 kgs per capita maize equivalent. Manicaland Province benefits most from irrigation, getting about 16.5 kgs per capita; this is mainly attributed to the high production in Nyamaropa communal area in Nyanga district. The contribution of irrigated crops to food security is lowest in Mashonaland Central Province (see Table 10 below).

Table 10: Per Capita Maize Equivalent Income from Irrigation

Province	Maize Equivalent Irrigated Crops (kgs/capita)		
	Cash Crops	Grain Crops	All
Manicaland	9.3	7.2	16.5
Mashonaland Central	0.1	0.2	0.3
Mashonaland East	1.2	0.3	1.4
Mashonaland West	0.7	0.6	1.3
Masvingo	2.4	1.4	3.8
Matabeleland North	0.1	0.6	0.7
Matabeleland South	1.4	3.4	4.9
Midlands	3.4	2.5	5.9
National	2.8	2.3	5.1

Source: NEWU/FEWS

IV-D. Food Aid: Performance and Trends

Food Relief distribution: In the past some communal areas accessed food through NGOs and the Government's food aid programs. However, the government suspended the Grain Loan Programme end of March 1999, prompted by an over registration of potential recipients, which was almost equivalent to the entire Zimbabwean population. At the time of the suspension 49,000 mt of maize were being distributed to 4.9 million people per month. Unlike this consumption period where such loans have not yet been extended, in the 1998/99 consumption period, the Grain Loan Programme started distribution as early as April 1998 (immediately after the 1998 harvest). A total of 1,293,471 people had registered for the loan in 40 out of 57 districts in the country, representing 20 percent of the population in these districts. It is uncertain whether Government will provide further loans to the qualifying communal farmers in 1999/2000, especially those identified as food insecure. This is a result of the poor repayment record and the low grain levels in the Strategic Grain Reserve (SGR) where the loan was drawn from since its inception in 1995/96,

IV-E. Livestock Off-Take Income: Performance and Trends

Livestock Off-take – Context:

Livestock off-take and sales are dependent on the season quality, the number of animals a household has, and the socio-economic conditions it faces. Sales provide a large component of MEI to some communal areas in the south, north, and west of the country. Small stock such as goats, sheep, fowls, and pigs are regularly sold to acquire income and food and is a major income source, as almost all households own small livestock. Cattle are rarely sold, since they are considered as security and an asset. However, when they are sold, they yield a large income to the owner. To capture these different behaviors and income streams, the present assessment will divide each communal population into two groups, cattle owning and non-cattle owning households. The percentage of households with cattle differs from one communal area to the other. On average, 55 percent of all households in each communal area are cattle owners, but the percentage of cattle owning households in each communal area was used to calculate the cattle owning population (see Appendix E).

Cattle: The number of cattle in the communal sector was estimated at 3.5 million in 1998. This is almost equivalent to the numbers in 1991, but 20 percent higher than the post drought average and less than the pre drought average (see Table 11 below). The increase in cattle numbers is mainly attributed to the general increase in numbers in Masvingo, Mashonaland Central and Midlands provinces. Cattle are almost evenly distributed among all provinces (ranging from 10 to 18 percent of total), but cattle ownership is highly skewed within the communal populations. Ownership rates vary from 13 percent to 98 percent of the households in a communal land, hence MEI for cattle is only calculated for those households who own cattle. Chegutu, Gwanda, Zvimba, Insiza, Wedza, Makonde, Beitbridge, Kwekwe,

Chirumanzu, Marondera and Nkayi districts have the highest per capita cattle holdings in communal areas, while Centenary and Chimanimani districts have the lowest (see Appendix E).

Table 11: Estimated Average Communal Area Livestock Numbers in 1998

Province	Period	Manicaland	Mash Central	Mash East	Mash West	Masvingo	Mat North	Mat South	Midlands	National
Cattle	1998	433414	354240	543144	353694	424240	378507	374353	630561	3492153
	Post-Drought	390073	312686	485104	346031	295725	379991	297600	404099	2911309
	1991	504820	275965	566855	353483	452452	366634	377468	584204	3481881
	Pre-Drought	580221	218494	490055	322649	608804	361608	407120	653843	3642792
Sheep	1998	40761	17570	21731	28704	49390	61663	174150	79418	473387
	Post-Drought	38133	15233	18735	44689	37199	37940	123308	31435	346671
	1991	43051	17279	16374	56804	52843	31181	87493	35256	340281
	Pre-Drought	79956	8805	12803	42680	81746	29195	99866	54320	409371
Goats	1998	290668	116173	149382	132631	507705	236470	779937	481182	2694148
	Post-Drought	258963	116784	178261	134961	397928	232684	622975	398442	2340997
	1991	274050	142047	153632	136656	383070	165266	539256	455079	2249056
	Pre-Drought	342057	61023	118263	127708	344071	190907	435682	447134	2066845
Pigs	1998	9074	11651	27922	21263	20455	7003	6502	21460	125330
	Post-Drought	9222	16295	22933	42750	18120	7842	4397	15735	137293
	1991	10674	21631	29333	51037	18474	9124	5671	12628	158572
	Pre-Drought	13265	14780	19628	41009	18128	9546	7376	11838	135569
Donkeys	1998	16456	3819	6141	7082	46407	53416	144704	59062	337087
	Post-Drought	15470	2987	5562	6537	40266	67092	104018	52083	294014
	1991	17061	2914	9887	7175	46218	62712	106038	59747	311752
	Pre-Drought	11242	2137	6374	5668	38017	50976	100969	89897	305280

Source: Department of Veterinary Services (Ministry of Agriculture)

The annual cattle off-take rate for most communal areas varies from one communal area to the next. The off-take rates used in this analysis are 2.5 percent in some districts, 5 percent in others, and 10 percent in the livestock-dependent areas in the southern provinces. These average rates are based upon data provided by the Department of Veterinary Services.

A total of 77 communal areas obtain more than 50 kgs per capita MEI from cattle off-take in the 1999/2000 consumption period compared to 64 communal areas last year. This is a result of a 47 percent increase in the producer prices of beef animals. Of these 77 communal areas, 39 will receive more than 100 kgs per capita MEI. At least 17 communal areas meet or exceed the minimum food security threshold of 250 kgs per capita MEI from cattle sales alone. These communal areas are mainly in Matabeleland South province.

Small Livestock: Matabeleland South accounts for the highest number of goats and sheep, followed by Midlands and then Masvingo province. Most of the goats are found in the drier Agro-ecological regions IV and V in all provinces. Majority of the communal areas own small livestock, but the off-take differs by communal area, and these are used to calculate MEI per communal area¹.

Goats: The communal sector held 2.69 million goats in 1998, an increase of 9 percent from the previous year's 2.48 million. The numbers have surpassed the pre- and post-drought average of about 2 million. The average goat holding for the entire communal sector is estimated at 0.4 goats per person giving per capita MEI of 6.2 kgs. The per capita MEI from goat sales has remained static at last year's 6 kgs per

¹ All communal areas own small livestock, hence the total communal population was used to calculate the MEI for each communal area.

capita, but less than the 1990s average of 8 kgs per capita. At least 22 communal areas achieve more than 20 kgs per capita MEI from goat sales, of which 9 achieve more than 50 kgs per capita MEI. Most of these communal areas are in Gwanda and Matobo districts of Matabeleland South province.

Based again on Veterinary Services information, the average goat off-take rate is estimated at 25 percent in Beitbridge and Gwanda, and 16 percent for the rest of the country.

Sheep: The communal sheep herd was 473,387 in 1998, an increase of 27 percent from 1997, but a decrease of 14 percent from 552,859 in 1996. Sheep numbers vary widely over time and the increase in 1998 is perhaps not too significant. Per capita MEI from sheep is relatively low this consumption year compared to other livestock, with only 4 communal areas obtaining at least 20 kgs per capita from sheep off-take. Only some communal areas in Bulilimamangwe and Gwanda districts benefit significantly from sheep. The average national per capita MEI from sheep in 1999/2000 is estimated at 1.5 kgs per capita compared to 1.3 kgs last year and 0.7 kgs in the 1990s. The average annual sheep off-take rate used is 10 percent for all districts with sheep.

Pigs: The total number of pigs in the communal sector was estimated at 123,800 in 1998, a decrease from 131,600 pigs in the previous year. The number of pigs has generally been on the decline compared to the pre-drought and post-drought averages. This decrease is partly explained by the relative increase in the price of maize in recent years, a major component in pig feed. Ownership of pigs in the communal sector is not very widespread. Most of the communal pig herd (23 percent) is found in Mashonaland East province and about 17 percent in Mashonaland West, Midlands and Masvingo provinces. A total of 33 communal areas do not keep pigs and these are mainly in Matabeleland South province. The average annual pig off-take rate is estimated at 25 percent for all districts. Pigs contributed 1.6 kgs per capita MEI at national level in 1999/2000 consumption period compared to 1.7 kgs last year. Only four communal areas receive over 10kgs per capita from pig sales (Magondi and Mupfure in Makonde district, Chikwaka in Goromonzi district and Chiswiti in Mount Darwin district).

Other livestock: The number of donkeys was estimated at 337,000 in 1998, slightly down from 409,490 previous year. This slight decrease could be attributed to a decrease in numbers in Manicaland and Matabeleland North provinces. In general, donkeys have increased in population compared to the pre-1991 drought and post-drought average. At least 42 percent of the donkeys are in Matabeleland South province. Although their value is considerable in other important aspects, donkeys do not provide much direct income from sale. Therefore maize-equivalent income from the sale of donkeys has not been computed for this CVA.

Livestock Off-take Income Summary -- Non Cattle Owners: The average maize-equivalent off-take income for non-cattle livestock owners is 9.3 kgs per capita in 1999/2000, similar to that of last year. This is 8 times lower than that of cattle owners, 72 kgs per capita. At least 13 communal areas derive more than 50 kgs per capita MEI from small livestock off-take but none of these meet the minimum food security threshold of 250 kgs per capita from small livestock off-take (see Table 12 and Appendix E).

Table 12: Per Capita Maize-Equivalent Income from Small Livestock Sales for Non-Cattle Owners

Rank	Province	District	Communal Area	Sheep	Goats	Pigs	Small Stock
The 20 Communal Areas with the Highest Per Capita Maize Equivalent Income							
1	Matabeleland South	Gwanda	Gwanda CL	45	172	7	225
2	Matabeleland South	Bulilimamangwe	Ngulube CL	8	117	0	126
3	Matabeleland South	Gwanda	Shashi CL	45	76	4	125
4	Matabeleland South	Matobo	Mambali CL	19	100	5	124
5	Matabeleland South	Beitbridge	Masera CL	11	107	2	121
6	Matabeleland South	Matobo	Maribeha CL	13	84	2	99
7	Matabeleland South	Bulilimamangwe	Mpande CL	42	44	0	86
8	Matabeleland South	Beitbridge	Chipise CL	8	69	0	77
9	Matabeleland South	Beitbridge	Machuchuta CL	16	58	0	74
10	Midlands	Gokwe North	Sebungwe CL	6	61	7	74
11	Matabeleland South	Gwanda	Dibilishaba CL	13	41	1	56
12	Matabeleland South	Beitbridge	Dendele CL	15	37	4	56
13	Matabeleland South	Matobo	Seear Block CL	15	40	0	55
14	Matabeleland South	Bulilimamangwe	Maitengwe CL	1	47	0	48
15	Matabeleland South	Insiza	Insiza CL	6	40	0	46
16	Matabeleland South	Beitbridge	Maramani CL	8	33	0	41
17	Matabeleland South	Bulilimamangwe	Radladi CL	28	7	0	35
18	Matabeleland South	Bulilimamangwe	Mphoengs CL	11	23	0	34
19	Matabeleland South	Gwanda	Wenlock CL	3	29	2	33
20	Mashonaland West	Makonde	Mupfure CL	2	12	16	30
The 20 Communal Areas with the Lowest Per Capita Maize Equivalent Income							
1	Mashonaland East	Chikomba	Nharira CL	0	1	0	1
2	Midlands	Gweru	Manyame CL	0	1	0	1
3	Manicaland	Mutare	Dora CL	0	1	0	1
4	Manicaland	Mutare	Zimunya CL	0	1	0	1
5	Mashonaland Central	Shamva	Madziwa CL	0	1	0	1
6	Manicaland	Mutasa	Holdenby CL	0	0	0	0
7	Manicaland	Chimanimani	Ngorima CL/Chikukwa	0	0	0	0
8	Manicaland	Mutare	Rowa CL	0	0	0	0
9	Mashonaland Central	Centenary	Mukumbura West CL	0	0	0	0
10	Mashonaland Central	Mount Darwin	Masoso West CL	0	0	0	0
11	Mashonaland East	Chikomba	Manyene CL	0	0	0	0
12	Mashonaland East	UMP	Maramba CL	0	0	0	0
13	Mashonaland West	Kariba	Gatshe Gatshe CL	0	0	0	0
14	Mashonaland West	Kariba	Omay CL	0	0	0	0
15	Matabeleland South	Gwanda	Makwe CL	0	0	0	0
16	Matabeleland South	Matobo	Semukwe CL	0	0	0	0
17	Midlands	Gokwe North	Chireya/Chirisa CL	0	0	0	0
18	Midlands	Gokwe North	Goredema CL	0	0	0	0
19	Midlands	Shurugwi	Mashava North CL	0	0	0	0
20	Midlands	Zvishavane	Ungova CL	0	0	0	0

Cattle Owners: MEI for cattle owners is made up of the cattle and small livestock off-take. Normal cattle off-take contributes significantly to the cattle owner's maize-equivalent income. A total of 53 communal areas derive more than 100 kgs of per capita MEI from average cattle off-take rates and sales in the 1999/2000 consumption period compared to 42 last year. Of these, 23 communal areas, mainly in Matabeleland South, derive the entire minimum food security requirement of 250 kgs of per capita MEI from livestock sales alone. This is an increase from 10 communal areas last year. Manicaland and Mashonaland Central cattle-owners derive the least income from their cattle holdings (see Table 13 and Appendix E).

Table 13: Per Capita Maize-Equivalent Income from Small Livestock and Cattle Sales for Cattle Owners

Rank	Province	District	Communal Area	Cattle	Small Stock	All Livestock
The 20 Communal Areas with the Highest Per Capita Maize Equivalent Income						
1	Matabeleland South	Beitbridge	Masera CL	1313	121	1433
2	Matabeleland South	Gwanda	Gwanda CL	1110	225	1334
3	Matabeleland South	Beitbridge	Siyoka CL	844	23	867
4	Matabeleland South	Matobo	Mambali CL	679	124	803
5	Matabeleland South	Gwanda	Shashi CL	639	125	764
6	Midlands	Gokwe North	Sebungwe CL	534	74	608
7	Midlands	Gokwe South	Kana CL	540	19	559
8	Matabeleland South	Insiza	Insiza CL	480	46	526
9	Matabeleland South	Bulilimangwe	Ingwezi CL	492	16	509
10	Matabeleland South	Bulilimangwe	Ngulube CL	328	126	454
11	Matabeleland South	Gwanda	Wenlock CL	383	33	416
12	Mashonaland West	Chegutu	Mhondoro CL	374	12	386
13	Matabeleland North	Lupane	Dandanda CL	340	9	349
14	Matabeleland South	Gwanda	Matshetshe CL	314	29	343
15	Matabeleland South	Gwanda	Gwaranyemba CL	316	11	328
16	Matabeleland North	Binga	Busi CL	299	14	314
17	Midlands	Zvishavane	Mazvihwa CL	298	12	310
18	Matabeleland South	Bulilimangwe	Mpande CL	222	86	308
19	Matabeleland South	Beitbridge	Maramani CL	249	41	290
20	Matabeleland South	Beitbridge	Dendele CL	225	56	281
The 20 Communal Areas with the Lowest Per Capita Maize Equivalent Income						
1	Manicaland	Chimanimani	Mutambara CL	16	6	22
2	Manicaland	Mutasa	Mutasa North CL	19	2	21
3	Masvingo	Bikita	Bikita CL	14	6	21
4	Manicaland	Mutasa	Mutasa South CL	17	3	20
5	Mashonaland East	Chikomba	Nharira CL	19	1	20
6	Manicaland	Mutare	Marange CL	15	4	19
7	Manicaland	Makoni	Makoni CL	16	2	18
8	Manicaland	Chipinge	Musikavanhu CL	9	9	18
9	Manicaland	Mutare	Muromo CL	11	5	16
10	Mashonaland Central	Centenary	Muzarabani CL	12	1	13
11	Masvingo	Bikita	Matsai CL	8	3	11
12	Mashonaland Central	Mount Darwin	Mukumbura East CL	7	4	11
13	Manicaland	Mutare	Chinyauhera CL	9	2	11
14	Manicaland	Mutare	Dora CL	8	1	9
15	Mashonaland East	Goromonzi	Chinyika CL	7	2	8
16	Mashonaland East	Mudzi	Mkota CL	4	2	6
17	Manicaland	Mutare	Zimunya CL	5	1	6
18	Manicaland	Chipinge	Tamandayi CL	2	2	5
19	Manicaland	Mutasa	Holdenby CL	4	0	4
20	Manicaland	Chimanimani	Ngorima CL/Chikukwa	1	0	1
Communal Areas without data						
1	Manicaland	Mutare	Rowa CL	0	0	0
2	Mashonaland Central	Centenary	Mukumbura West CL	0	0	0
3	Mashonaland Central	Mount Darwin	Masoso West CL	0	0	0
4	Mashonaland East	Chikomba	Manyene CL	0	0	0
5	Mashonaland East	UMP	Maramba CL	0	0	0
6	Mashonaland West	Kariba	Gatshe Gatshe CL	0	0	0
7	Mashonaland West	Kariba	Omay CL	0	0	0
8	Matabeleland South	Gwanda	Makwe CL	0	0	0
9	Matabeleland South	Matobo	Semukwe CL	0	0	0
10	Midlands	Gokwe North	Chireya/Chirisa CL	0	0	0
11	Midlands	Gokwe North	Goredema CL	0	0	0
12	Midlands	Shurugwi	Mashava North CL	0	0	0
13	Midlands	Zvishavane	Ungova CL	0	0	0

Source: Veterinary Services and FEWS

IV-F Wages, Remittances and Off-farm Income: Trends and Performance

Secondary data from different sources were used to estimate the MEI for wages, remittances and other income sources for the 1999/2000 consumption period.

Wages: Selling of labour is common in communal areas adjacent to the large scale commercial farms in Mashonaland East, Central, and West and Manicaland provinces. Some households in communal areas such as Svosve, Mutoko and Mangwende in Mashonaland East province, Mhondoro in Mashonaland West province and Chiweshe in Mashonaland Central province, provide casual labour to the neighboring crop and horticultural farms, earning some income to buy inputs and food. Day wages are earned in kind or cash, where poor households offer labour to the well off households within or in adjacent communal areas. This is one of the major means of sharing income and has been captured by distributing agricultural production per person within the communal areas, although wages from paid agricultural work may decline substantially in poor agricultural years. Formal and informal wage income from employment is higher in communal areas adjacent to the major cities, mining, and commercial farming areas (e.g. Seke, Rowa, Zimunya, Goromonzi, Manyame, Zimuto, and Umguza communal areas). It is however, difficult to quantify the contribution of these wages to food security due to lack of data.

Remittances: There is a general economic inter-dependence between the urban and the communal areas. In years of surplus production in communal areas, maize is transferred by communal sector households to household members residing in urban areas. In turn, remittances, from urban areas (as well as from outside Zimbabwe), are a considerable source of income in most communal areas. Remittances may take the form of cash, agricultural inputs, implements, groceries or clothing. It is estimated that large numbers of residents from Beitbridge, Chiredzi, Mwenezi, Gwanda, Bulilimangwe and Matobo districts are migrant workers in South Africa or Botswana.

Off-Farm Income: Non-farm activities (crafts, gold panning, wild fruits, firewood, beer sales, etc.) are an additional substantial source of income. Households intensify the use of these income sources during years of poor agricultural output.

The Risk Map Report for Zimbabwe done by Save the Children's Fund United Kingdom (SCF) in 1996 provides income sources by communal area as it describes the food economy zones. These data were used for deriving MEI for remittances and non-farm income (see Table 14 below at the province level). The other sources of this information are the Poverty Assessment Study (PASS) carried out by Social Welfare Department in 1995/96 and the Income, Consumption and Expenditure survey carried out by the Central Statistical Office in 1995/96 (results not yet out). These surveys assess the income sources by district. A comparison of these studies indicates a close similarity in percentage contribution of income sources to the total income available to the communal sector.

Table 14: Percentage Contribution of Other Income Sources and Agriculture by Province for the Communal Areas

Province	Percent Contribution of				
	Wages & Remittances	Off-Farm	Other & Trade	Total	Agriculture
Manicaland	26.1	14.3	4.7	45.1	54.9
Mashonaland Central	15.5	11.6	5.6	32.7	67.3
Mashonaland East	17.5	14.7	4.1	36.3	63.7
Mashonaland West	13.1	19.9	8.3	41.3	58.7
Masvingo	25.0	15.7	3.8	44.5	55.5
Matabeleland North	30.7	12.1	2.9	45.8	54.2
Matabeleland South	37.2	6.7	2.0	45.9	54.1
Midlands	18.8	15.5	3.6	37.9	62.1
National	23.0	13.8	4.4	41.2	58.8

Source: Save the Children Fund – Risk Map Report – Zimbabwe, 1996

IV-G: Unquantified Other Income Sources: Performance and Trends

Grain and other cash crop production are only supplementary income-earning activities in Holdenby, Ngorima, parts of Mutoko and Gatshe Gatshe communal areas. Gatshe Gatshe communal area relies entirely on fisheries, whilst Mutoko, Ngorima and Holdenby communal areas rely on commercial sales of fruit and vegetables, in most cases supplemented by grain and cash crops. Income levels of between Z\$2,000 to over Z\$40,000 per household per year are earned from fisheries or vegetable and fruit sales in these communal areas. At current maize prices, this is equivalent to a ton to 17 tons of maize or 120 to over 2,000 kgs per capita MEI.

IV-H: Information Gaps:

This CVA has used the best available data and information for the assessment of food availability and access among communal populations in Zimbabwe in the 1999/2000 consumption period. However, the assessment faces the following information and data weaknesses:

- a) There is lack of up to date data on the income levels derived from sale of fruits, vegetables, pulses, craft, beer brewing, and firewood. From the SCF report, indicative data are only available at the food economy zones, which in some instances does not cover the whole communal area. Statistically significant data from CSO are only available at district and provincial levels. This may lead to an overestimation and/or underestimation of food access in some communal areas.
- b) The distribution of livestock holding at the communal area level is not well documented.
- c) Variations in livestock off-take rates are not regularly documented and only cattle ownership data for 1998 are available for the analysis, instead of the 1999 data.
- d) Data on how communal households intensify their use of coping mechanisms in the face of food insecurity are not well documented and unavailable for use as an observable or confirmatory indicators.
- e) Livestock for some communal areas is recorded under neighboring areas, resulting in lack of data for these areas.
- f) The 1998 livestock data is used in this CVA due to lack of current data.
- g) Information about food utilization is insufficient for determining whether to shift a given communal area from one food security classification to another.

SECTION V: SUMMARY OF CURRENT FOOD SECURITY

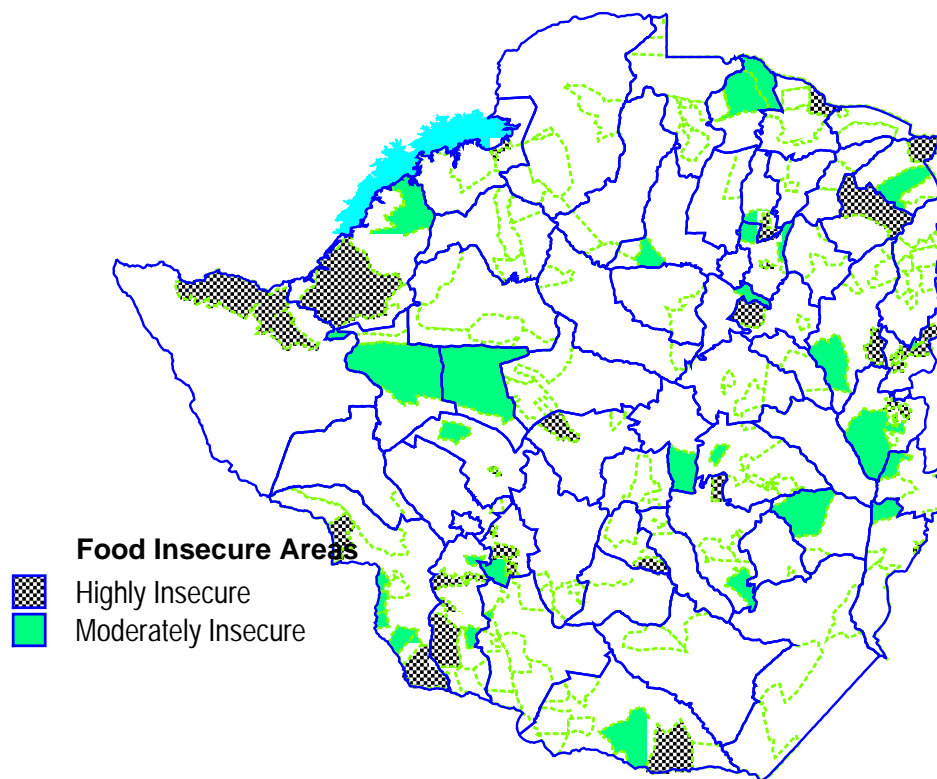
Section Objectives:

- *Aggregate all income sources documented in Section IV, to determine the food security status of communal areas*
- *Provide insight on the degree to which prevailing food availability and access conditions are normal or exceptional.*
- *Discuss the primary reasons for the changes in current food security levels.*

V-A. Current Food Security Levels

A total of 46 communal areas are ranked as food insecure. Of these 24 communal areas are classified as **“highly food insecure”** with a minimum food security threshold of less than 166 kgs per capita maize equivalent income (MEI). The remaining 22 communal areas are **“moderately food insecure”** (with 250 kgs per capita MEI or less) for the 1999/2000 consumption year (see Map 6 and Table 15 below).

Map 6: Most Food Insecure Communal Areas (≤ 250kgs/capita MEI)



Source: NEWU/FEWS

The communal areas shown on Map 4 above exclude Holdenby, Mutoko, Chiota, Msana, Tandamayi and Rowa communal areas. Despite their low measured MEI as on the Table 15 below, these communal areas rely on **unmeasured** income from the sale of fruits and vegetables, but lacks data. The unmeasured income is likely to boost their MEI above the minimum food security threshold of 250 kgs per capita. However, the food security status of households in these communal areas needs further investigations.

Removing these communal areas (shaded in the table below), a total of 40 communal areas remain food insecure in the 1999/2000 period.

Table 15: Most Food Insecure Communal Areas by Socio Economic Group (ranked by per capita MEI)

Rank	Communal Area	District	Province	Total Pop	Non Cattle Owners				Cattle Owners				
					Pop	1999	1998	1990s	Pop	1999	1998	1990s	
Highly Food Insecure Communal areas													
1	Tamandayi CL	Chipinge	Manicaland	7222	2512	59	76	537	4710	63	75	537	
2	Hwange CL	Hwange	Mat North	70186	35093	61	147	192					
3	Manyame CL	Gweru	Midlands	45708	22854	62	131	225	22854	205	222	225	
4	Mzinyatini CL	Umzingwane	Mat South	19296	11577	65	78	110	7718	209	140	110	
5	Ramakwebane CL	Bulilimamangwe	Mat South	15249	7955	78	77	226					
6	Semukwe CL	Matobo	Mat South	29965	14982	84	83	416	14982	84	52	416	
7	Diti CL	Beitbridge	Mat South	12881	258	88	83	337	12623	199	112	337	
8	Chiota CL	Marondera	Mash East	49770	8162	92	74	381	41608	133	126	381	
9	Tshatshani CL	Matobo	Mat South	8911	3502	101	154	307	5409	221	324	307	
10	Mpimbila CL	Bulilimamangwe	Mat South	16657	1588	102	160	390					
11	Holdenby CL	Mutasa	Manicaland	63649	55056	110	158	229	8593	117	154	229	
12	Siyoka CL	Beitbridge	Mat South	14510	12343	112	100	451					
13	Chinyika CL	Goromonzi	Mash East	10491	5246	113	145	388	5246	118	233	388	
14	Masoso West CL	Mount Darwin	Mash Central	22461	11230	116	94	220	11230	114	97	220	
15	Nswazi CL	Umzingwane	Mat South	11982	7788	133	195	259					
16	Zimunya CL	Mutare	Manicaland	22600	452	136	219	222	22148	145	199	222	
17	Ingwezi CL	Bulilimamangwe	Mat South	1598	1045	138	135	330					
18	Lupane CL	Lupane	Mat North	97487	43697	140	172	465					
19	Manjolo CL	Binga	Mat North	80976	15385	140	82	169					
20	Msana CL	Bindura	Mash Central	34525	17262	141	585	592	17262	179	609	592	
21	Kumalo CL	Matobo	Mat South	13007	5983	144	74	372					
22	Siabuwa CL	Binga	Mat North	28565	23335	145	97	243					
23	Zimutu CL	Masvingo	Masvingo	15052	8279	147	117	806	6774	220	158	806	
24	Inkosikazi CL	Bubi	Mat North	16676	8338	160	184	596					
Moderately Food Insecure Areas													
25	Runde CL	Zvishavane	Midlands	43792	21896	171	111	456					
26	Nkayi CL	Nkayi	Mat North	125526	37658	172	277	554					
27	Mtetengwe CL	Beitbridge	Mat South	23725	475	176	96	286					
28	Mutoko CL	Mutoko	Mash East	95687	47843	179	164	685	47843	222	240	685	
29	Matopo CL	Umzingwane	Mat South	19471	5452	181	119	848					
30	Sansukwe CL	Bulilimamangwe	Mat South	16861	8780	181	359	377	8081	205	358	377	
31	Rowa CL	Mutare	Manicaland	6430	129	184	38	464	6302	184	172	464	
32	Makoni CL	Makoni	Manicaland	32478	14850	186	145	467	17627	214	169	467	
33	Brunapeg CL	Bulilimamangwe	Mat South	5289	2590	186	220	186					
34	Mkota CL	Mudzi	Mash East	84138	1683	187	294	3117	82455	194	301	3117	
35	Dora CL	Mutare	Manicaland	11913	2281	195	513	638	9632	209	185	638	
36	Masera CL	Beitbridge	Mat South	2189	1254	198	255	2442					
37	Esiphezini CL	Umzingwane	Mat South	4033	81	198	353	713					
38	Inyathi CL	Bubi	Mat North	5054	101	205	234	413					
39	Mutasa South CL	Mutasa	Manicaland	18569	1574	206	342	562	16995	236	363	562	
40	Zvimba CL	Zvimba	Mash West	38682	19341	208	192	933					
41	Lubimbi CL	Binga	Mat North	5679	1277	211	801	444					
42	Serima CL	Gutu	Masvingo	15116	7558	217	288	807					
43	Muzarabani CL	Centenary	Mash Central	126704	63352	226	377	1155	63352	242	410	1155	
44	Chiduku CL	Makoni	Manicaland	89612	39327	233	87	497					
45	Wenlock CL	Gwanda	Mat South	12821	8526	241	163	405					
46	Mphoengs CL	Bulilimamangwe	Mat South	13767	8533	249	186	338					
a	Total Population for the 40 CAs			1249677									
b	Total Highly food Insecure			349915	240931				108984				
c	Total Moderately Food Insecure			444732	246589				198143				
d	Total Insecure			7946446	487520				307127				

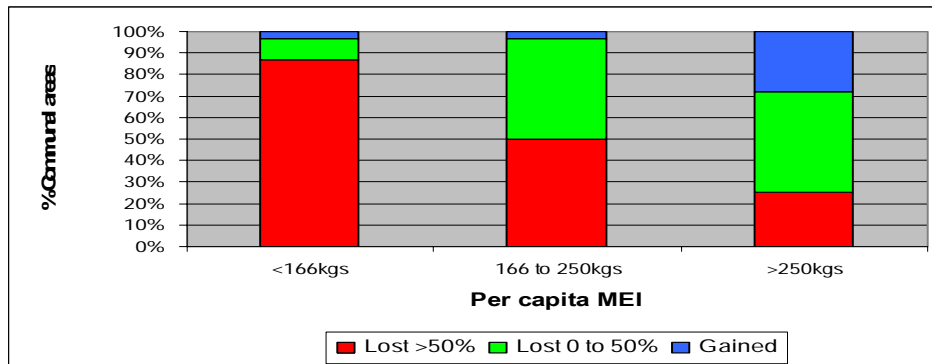
Source: FEWS/NEWU

Note: The totals (a to d) exclude the shaded communal areas.

It is believed that the shaded communal areas can meet the minimum of more than 250 kgs MEI per capita from other sources of income not quantified in the assessment..

Communal areas in all food security categories lost some MEI compared to the 1990s average. Almost 90 percent of the highly food insecure compared to about 50 percent of the moderately insecure and 25 percent for the food secure communal areas lost more than 50 percent of their MEI in 1999/2000 consumption period (see Figure 1). The losses attributed to a decrease in the MEI of cash crops and livestock for the highly food insecure category and a decrease in the moderate insecure category, are due to losses in the per capita grain production (see Section V-B).

Figure 1: Per capita loss in MEI in 1999/2000 compared to the 1990s average by each Food security category



The 1999/2000 CVA estimates that there are 1.2 million people residing in moderately and highly food insecure communal areas. Only 40 out of 174 communal areas are classified as food insecure, of which 20 are classified as highly food insecure. Of these highly food insecure areas, some lost more than 50 percent of their Maize Equivalent Income (MEI) compared to the 1990s average. The number of food insecure communal areas has decreased to 40 in the 1999/2000 consumption period compared to 70 communal areas in 1998/99 consumption period. Particular attention is required where these communal areas fall under the high potential crop producing regions, as they rely mainly on agriculture for their livelihood. The fact that almost equal numbers of both cattle owners and non cattle owners are food insecure, raises the need for further investigations to determine the number of cattle per household that separates food secure from food insecure households. However, it should be noted that not all households in these communal areas identified as food insecure are necessarily insecure, as each household has different methods of accessing food. Rather, these are the areas in which there is the highest probability of finding households and communities that are short of the minimum amount of food access required for the 1999/2000-consumption year.

Due to the stratification of each communal area into people who own cattle and those who do not, the CVA has calculated two measures of food access (MEI) for each communal area (except for 13 communal areas for which cattle-ownership data are missing, Table 13). In some cases, both the cattle-owning population and the non-owning population of a given communal area are food insecure, meaning that almost 100 percent of the communal area population is food insecure¹. In other cases, only the non-owning population in a given communal area is food insecure while the cattle-owning population is food secure, meaning that less than 100 percent of the communal population is food insecure.

Of the 1.2 million residents in the 40 food insecure communal areas, the CVA estimates that as many as 800,000 people are food insecure, as the other 400,000 people who are cattle owning households are food secure. Out of the food insecure communal areas, 20 or 44 percent are identified as highly food insecure. Of

¹ Some households within the communal areas with 100 percent of the population identified as food insecure have enough food. A needs assessment is required for the identified communal areas.

the food insecure population, at least (488,000 people) 61 percent do not own cattle and of these 44 percent (241,000 people) are categorized as highly food insecure.

In-depth local needs assessments are required for better targeting of any assistance to food insecure households.

For the food insecure communal areas in the country, most of them are in Matabeleland South province. At least 18 out of 37 communal areas in this province are food insecure in the 1999/2000 consumption period. However, this figure is lower than that of 1998/99 (33 out of 37). In Manicaland province, at least 5 communal areas are food insecure this period compared to 16 last year. In Masvingo it is 2 compared to 16. Matabeleland North has 8 and Mashonaland East has 2 among the 40 lowest ranked communal areas. In 5 out of the 20 highly food insecure communal areas both the cattle owners and the non-cattle owners fall below the 166 kgs MEI threshold. As would be expected, cattle owners appear more food secure than non-cattle owners - 20 non-cattle-owner populations have per capita MEI of less than 166 kgs, while only 5 cattle-owner populations do.

V-B: Food Access Trends over Time

How do the food security levels in 1999/2000 consumption period compare with the 1990s average? The majority of the normally most food insecure communal areas in 1990s have met the minimum food security threshold this consumption period. The number of communal areas categorized as highly or moderately food insecure in 1999/2000 has decreased compared to 1998/99 but increased slightly above the 1990s average (see Appendix G). There has been an increase of 36 percent in the number of food secure communal areas which derive most of their minimum food security MEI from crops and livestock compared to last year and a 6 percent increase compared to the 1990s average (see Table 16 below). Some of the areas which are usually food secure are food insecure this year, some losing more than 80 percent of their MEI compared to the 1990s average due to the poor season quality.

Table 16: Number of Communal areas by Food Security Level and Income Source over the Years

Food Security Level	Income Sources	1999/2000	1998/99	1997/98	1990s Aver.
Highly Food Insecure	All Grain	81	111	65	79
	All Crops	60	92	32	62
	Crops and Livestock	54	85	25	57
	All Income Sources (Non-Cattle Owners)	24	42	4	7
	All Income Sources (Cattle Owners)	7	23	4	7
Moderately Food Insecure	All Grain	29	14	34	41
	All Crops	28	16	20	30
	Crops and Livestock	29	22	20	30
	All Income Sources (Non-Cattle Owners)	22	28	2	14
	All Income Sources (Cattle Owners)	14	28	2	14
Food Secure	All Grain	63	48	74	53
	All Crops	85	65	121	81
	Crops and Livestock	90	66	128	85
	All Income Sources (Non-Cattle Owners)	127	103	167	152
	All Income Sources (Cattle Owners)	152	122	167	152

From Table 17 below, it is clear there has been a big increase in average per capita food access in MEI this consumption year- compared with last year- up from 577 kgs per capita in 1998/99 and 825 kgs in the 1990s to 981 kgs. This represents an improvement of 404 to 156 kgs, respectively, or a 70 percent increase in food access this year compared to last year and a 19 percent increase compared to the 1990s average. Compared to the 1998/99 consumption year and 1990s average, it is apparent that 1999/2000 food security levels are considerably better. These 1999/2000 levels fall only 21 percent below the 1997/98 levels, when more than 73 percent of the communal areas being food secure.

Table 17: Comparisons of Food Access Levels over Time for the Communal-Sector (kgs of MEI/capita)

Income Source	1999/2000	1998/99	1997/98	1990s Avg
Grain Stocks	6	8	28	10
Grain Crops	250	186	290	231
Cash Crops	192	119	423	283
Livestock Off-Take	72	48	68	27
Relief	0	7	0	25
Other Income	461	209	440	276
Total	981	577	1249	825

When comparing the 1999/2000 consumption period with 1998/99 and the 1990s average, the high level of food access this year is explained by an increase in the MEI from grain crops and livestock. Grain crop MEI increased by 34 percent from last year and decreased by only 8 percent compared to 1997/98, one of the best consumption periods in the 1990s. Livestock offtake MEI increased by 50 percent and 167 percent, respectively, compared to last year and the 1990s average (see Appendix G, all livestock).

The improvement in food security in 1999/2000 is a result of a 34 percent increase in MEI from grain production compared to last year and a relatively small increase in MEI from cash crop production. On the other hand, food access from livestock increased because of the favorable cattle prices experienced in 1999/2000, not due to an increase in offtake rates.

V-C: Source of MEI and Food Access, by Food Security Status

What sources of production, income, and transfers are associated with this year's food security and food insecurity? Table 18 shows the average amount of maize-equivalent income coming from all sources, by food security status, for both cattle owners and non-cattle owners.

Table 18: Sources of Average MEI in 1999/2000, by Secure/Insecure (kgs/capita) (Check Figures)

Food Security Status	Socio-Economic Group	Grain Crops	Cash Crops	Irrigated Crops	All Livestock	Carryover Stocks	Other Income	Total Income
Food Secure	Cattle Owners	246	156	11	134	8	393	948
	Non Cattle Owners	285	185	12	115	9	347	954
Moderately Insecure	Cattle Owners	49	28	1	39	2	88	208
	Non Cattle Owners	74	27	2	129	2	81	315
Highly Insecure	Cattle Owners	41	15	1	8	3	42	110
	Non Cattle Owners	31	9	3	130	3	41	217

Highly Food Insecure, Moderately Food Insecure vs Food Secure: The food secure communal areas have relatively high MEI from all income sources, separating them from the highly and moderately food insecure areas both for the owners and non-cattle owners. Grain and cash crops together with “other income sources” separate the highly from the moderately food insecure (Table 18). However it should be noted that the effect of averaging makes the non cattle owners better off than cattle owners in MEI.

Cattle Owners vs Non-Cattle Owners: The number of communal areas which are food secure increases by 20 percent, from 127 to 152, if income from cattle ownership is factored in (Table 16). However, being a cattle-owner does not necessarily ensure food security as a number of cattle owners in certain communal areas also fall in the category of highly and moderately food insecure (Table 18).

SECTION VI: RISK

Section Objectives:

- *Evaluate the vulnerability of these populations in terms of the potential for shocks to food access conditions during the consumption period. What is their capacity to cope with such shocks?*

VI-A. Risk Factors

Re-Imposition of Grain Price Controls: Government's re-imposition of informal price controls on the producer and retail price of maize grain and meal has not been fully successful as the millers continued to pass on the costs of increased maize grain prices, labour, fuel and other costs to the consumer. The price increases will adversely affect poor consumers in urban areas more than rural areas. Most of the remote rural areas that used to rely on grain and maize meal purchases for their food security at least harvested enough for home consumption for the 1999/2000 period. Due to the nature of the grain production and distribution within communal areas, communal farmers will be able to acquire grain within the communal area or from the neighboring areas. Under these circumstances, the imposed informal controls are less likely to affect the communal sector. However, the high inflation rate is likely to affect the price of grain. Grain prices are likely to increase, affecting the food security of those in the communal areas relying on purchased grain to supplement their production.

On the other hand, large and small millers have also been buying grain directly from farmers at prices higher than the floor prices set by Government through the Grain Marketing Board (GMB). In the meantime, the controls would not affect the millers until later in the year when they run out of their purchases, as most of them do not have storage capacity for grain. Even as they run out, the cost of maize would remain almost similar to the GMB retail price.

Increasing Grain Prices: Maize prices in the communal sector are bound to increase in February/March 2000 above the minimum of Z\$4,200 per mt, as normal around this time of the year. The price increase will signal the expected increase in producer prices next rainy season (1999/2000), given the increase in the price of inputs and the general low volume of produce in the market. The anticipated increase will erode the food access of many households that depend on market purchases. The magnitude of the increase will determine the size of their losses. Using the Zimbabwe Agricultural Commodity Exchange (ZIMACE) prices as an indicator, a price of Z\$4,650 per mt has been achieved and could increase further in February. An increase in price of 43 percent to about Z\$6,000 per mt in the price of maize is possible by April next year if the present rate of inflation continues.

Macro Grain Market Policy Environment: The drawing down of the Government's physical Strategic Grain Reserve (SGR) to the lowest levels ever achieved last year could act as an incentive for the private sector to hold larger reserves than usual and hence play a larger role in food security. On the other hand, the low levels of the SGR, could leave room for the private sector to speculate on maize prices.

Government has to come up with a policy on when the SGR has to be released. If the SGR is not used appropriately this could hamper private sector participation in the grain market hence limiting grain availability at the local level. At the same time, food security for the poor could be threatened by price increases. A policy on the management of the SGR has to be put in place.

Erratic Food Relief: Government food aid programs such as the Grain Loan Programme and Free Food Programme are erratic in their operations in most years. The lack of incisive targeting often leads to the provision of grain to those who do not need it. In good years, this may have fewer negative consequences. However, in a year in which there may be some communal area population that requires food assistance,

the erratic deliveries and poor targeting become more problematic. The consumption gap normally met by traders will not be filled, as relief becomes a disincentive to traders to move adequate grain to those areas.

Perceived Change of Normal Internal Movement of Surplus Grain: Traditionally, the chronic grain production shortfalls of Matebeleland South Province, southern districts of Masvingo province and the northern and north west districts of Matebeleland North province have been filled by trader grain movement from certain areas in Midlands and Masvingo. This pattern does not hold this year, as the traditional surplus areas may not have surplus grain this consumption year. Ironically, the normal deficit areas have adequate grain this year. Thus, the normal surplus grain producing areas in Masvingo and Midlands may have to look for grain in Mashonaland Provinces later in the year. There could be problems of food availability in some of the districts if the market does not adjust to supply these normally surplus areas.

VI-B. Sensitivity Analysis

Classification of communal areas according to their degree of food insecurity may be sensitive to change in the maize price as the denominator for the measure of MEI. Indeed, maize prices, as described in Section VI-A, are likely to go up as availability decreases later in the consumption year. Gauging by the prices on the Zimbabwe Agricultural Commodity Exchange, where maize is traded freely, the price of maize could reach a maximum of around Z\$4,800 per mt in February or March 2000. Such a price is 14.3 percent higher than the price of Z\$4,200 used in determining MEI for this CVA. Table 19 below, shows what happens to MEI when the higher price of Z\$4,800 is used in place of Z\$4,200.

Table 19: Loss of MEI if Maize Prices Increase

Income Source	MEI when Maize Price increase by 143 percent (Kgs/capita)	MEI at current Maize Prices	Percent Loss in MEI
Grain Stocks	6	6	0.0
Grain Crops	250	250	0.0
Cash Crops	119	192	38.0
Livestock Off-take	63	72	12.5
Relief	0	0	0.0
Other Income Sources	314	461	31.9
Total	752	981	23.3

Two points emerge from table 19. First, increasing the maize price to Z\$4,800 only matters for income from cash crops, livestock offtake and “other income”. The maize-equivalent value of cash crops income drops by 38 percent, followed by “other income” at 31.9 percent. The MEI loss of livestock offtake is lower at 12.5 percent.

Second, the overall loss of MEI reaches 23.3 percent. On this basis, maize equivalent income is very sensitive to the choice of maize price because the maize price increase of 14.3 percent leads to an even greater loss of MEI of 23.3 percent.

However, the maize price increase has only a slight change in the classification of communal areas as food insecure. Raising the maize price to Z\$4,800 increases the food insecure communal areas from 40 to 43. In this case the maize price increase of 14.3 percent leads to less than proportional increase of 7.5 percent in the number of food insecure communal areas.

For the purposes of this CVA, the food security classification of communal areas is not very sensitive – within the range of expected price increases – to the choice of maize prices used to

value income. The authors have confidence that this CVA has produced a reasonably robust classification of communal areas according to their degree of food security.

VI-C. Potential Coping Resources

Due to a poor harvest in the 1997/98 production year, very few communal areas had carryover stocks for the 1999/2000 consumption year. This effect continued to the present as most of the 40 communal areas identified as food insecure in the 1999/2000 consumption period started relying on the 1998/99 harvest before the start of the current consumption year in April. Thus, the available food and means of accessing it could be under pressure as it had already been measured in this assessment. However, with a good 1999/2000 rainy season and given the other income sources, most households may be able to recover and access food.

The coping mechanisms already available in the communal sector include intensification of gardening, buying and selling of vegetables, fruits and second hand clothes, providing casual labor to wealthy households, working for relatives, gold panning and selling crafts and wild fruits. Some of the communal areas are likely to meet the shortfalls from these sources (that are difficult to measure because of a lack of data and information).

VI-D. Confirmatory Indicators

Limited Grain Movement: The normal trend of maize movement by traders from Shurugwi, Masvingo to Beitbridge is limited this year. Traders who are selling grain in the usual deficit areas have reported limited business.

Grain Trade: The usual grain deficit communal areas have managed to sell some of their grain to traders this season indicating that they had at least some surplus or that they were all the more desperate for income.

Suspension of the Grain Loan and Free Food Schemes: Despite Government suspending all its food aid programs end of March 1999, only about 170,000 people have applied for free food and these are from areas which are not critical. No reports of desperate situations have been reported, indicating that people still have adequate food 5 months after the harvest, which is the norm.

School Attendance: No reports have so far been received on falling school attendance rates due to inadequate food. The rate of school attendance will be monitored in the areas identified as food insecure in this analysis.

Nutrition and Health Data: Data on malnutrition in children under five years and in the primary school-going age bracket is being collected by the Ministry of Health. It is too early yet to see any patterns.

Population Movements: No unusual movements of population in search of food have been observed. The situation will be continuously monitored.

SECTION VII: ACTIONS REQUIRED

Section Objectives:

- *Suggest where a more focused assessment is most required. Suggest the types of interventions consistent with the CVA findings. Indicate which areas should be targeted for more intense follow-up assessments.*
- *Provide an objective basis for setting an initial planning figure for potential food aid requirements.*

Food Needs Assessment Required: Table 15 in Chapter V indicates which communal areas are apparently the most food insecure, and thereby provides a targeted listing of where further food aid need assessments should be carried out to determine if, and in what quantity, food aid is required. Based upon the low amount of food access found in the highly food insecure communal areas, food aid may be required in some areas to maintain acceptable levels of nutrition.

Disaster Declarations? The food access levels in the 1999/2000 consumption period does not warrant an emergency or disaster declarations as was done for Matebeleland South province in 1998/99. There is need, however, to carryout food needs assessments in the communal areas identified as food insecure and provide means for the people affected to increase their food access. Government and NGOs working in these areas would need to identify the target recipients and assist them bring their food security level to the required threshold.

Household Targeting Mechanisms related to Cattle Ownership Need to be Re-Established:

Households in 40 communal areas are food insecure this year. Hence there is a need to identify the number of cattle owned that separates the food secure from the insecure. A proper targeting mechanism based on the number of cattle owned need to be developed in the medium to long run.

Critical Need for Inputs: From the MEI assessment some of the communal farming households may meet immediate food requirements but only by sacrificing their investments in next season's production. Input purchasing or credit schemes are needed for the 1999/2000 production season, especially given the increase in the prices of basic inputs if good yields are to be achieved.

Policy on Strategic Grain Reserve: Use of the Strategic Grain Reserve (SRG) to date can be described as haphazard and potentially destabilizing for grain markets. The SGR was run down in the process of providing food aid and partly as commercial grain. Its use needs to be structured and a policy set out as to the price threshold when grain could be released if the SGR is to be used for price stabilization. If the SGR is to be used as a source of food aid, then the targeting mechanism and timing of its release should be established.

Drought management Plan: As a follow up to the Drought and Disaster Management Policy gazetted by Government in 1998, a drought implementation plan should be drawn up.

SECTION VIII: TECHNICAL APPENDICES

Appendix A: Approach to Food Security and Vulnerability Assessment: Methodology

Measurement of Income Sources: The CVA analysis is founded on a model of strategies households use to acquire food (whether by growing food directly, gathering wild food, purchasing food, or bartering for food). It assumes that household income is composed of production for home consumption and market sales, other income-generating activities, transfers (both public and private), and assets (that can be converted into current income). The CVA further analyzes the average cattle-owning and non-owning households in each communal area according to its degree of food security or insecurity during the current consumption year.

The analysis based at communal area level uses the most reliable and objective data. The analysis focuses on regularly collected production data on dryland and irrigated grain crops, cash crops, livestock (normal sales), food relief (distributed at time of analysis) and carryover grain stocks from the 1998/99 production year. Less reliable and disaggregated data on remittances, income from crafts, wage earnings, and beer brewing is factored into the analysis. Revenues from all these strategies, which a household uses to acquire food, will be termed “income” in this analysis.

Other sources of income and production, such as home business, fisheries, gardens and fruits, and trade in such things as second hand clothes, will not be factored into the income sources as no data are available and these are difficult to measure. For food insecure communal areas, any unmeasured but important sources of income will be subjectively assessed to determine whether they would raise communal area income to the minimum food security threshold.

The Base for Assessment: To be able to compare all of these income sources measured in various units (tons, value in Zimbabwe dollars, head of livestock, etc.), against a standard of how much income/production is required to be food secure, all income and production will be converted into “maize equivalent income” (MEI). This means that all cash income received (e.g. from the sale of cotton or livestock off-take income) will be converted into the quantity of maize that could be purchased at the prevailing retail maize price. In the case of goods produced or received (cash crops, food relief, etc.), the good will be converted into income by theoretically “selling” it for the prevailing average price, and then “spending” all the proceeds to “buy” an amount of maize at the prevailing retail maize price.

The Unit of Analysis: The conceptual framework for this CVA is based on the household, but the analysis is carried out at the fourth administrative level unit (the communal area). This CVA measures food access and availability per person per year for each of the 174 communal areas in Zimbabwe. Analysis is done at this level for four reasons;

- disaggregated data are available at this level,
- the traditional administration is usually at this level,
- resource allocation and planning is sometimes done at this level, and
- Government food relief programs (grain loans) have been targeted at households, but repayment is arranged at the communal area level.

The analysis has treated all income on per capita basis to measure average MEI in each communal area. An exception to this is the treatment of cattle in each communal area. The population in each communal area is divided into cattle owners and non-cattle owners for five reasons:

- cattle are an important asset which roughly measures self-esteem and wealth in society;
- cattle provide manure which is used to increase crop production;

- cattle provide milk for the family;
- cattle are a source of draft power in crop production; and
- cattle serve as a tradable hedge against risk.

On this basis, it is hypothesized that the cattle-owning population within a given communal area is more likely to be food-secure (all factors equal) than the population which does not own cattle. These contributions from cattle are not directly captured in this analysis, but disaggregating the population of each communal area into two groups ensures that income from cattle off-take is distributed to the cattle-owners, not the non-cattle owners.

Assessment Based Primarily on Secondary Data: This analysis is based on data sets compiled by the National Early Warning Unit (NEWU), the Department of Veterinary Services, Meteorological Services and the Ministry of Labour and Social Welfare. Qualitative information on important sources of unmeasured income is incorporated into the analysis to avoid underestimating income in some of the communal areas. Thus, the results provided here are an accounting of all the measured sources of production, income, and entitlements in “maize equivalents”, supplemented by an accounting of other sources of unmeasured production, income, and entitlements for those areas which have not met their minimum food security standard based on the measured sources.

Relatively speaking, Zimbabwe benefits from a large food security database, covering the period between 1980 and the present. Where data sets were not available to describe important aspects of income in Zimbabwe, best judgement has been used. Efforts continue to fill in important data gaps, to substantiate further some weakly documented data, and to re-discover and digitize old data.

Principal sources of income which are poorly documented include:

- a) wages and remittance income — data available for this source of income only describe the provincial level;
- b) fishing income (especially for Manjolo and Gatshe-Gatshe communal lands);
- c) craft income (especially along major transport routes — e.g., in Matibi 1, Manjolo, Hwange, Chivi, and Ndowoyo communal lands); and
- d) fruit and vegetable income (especially for Mutema, Chikukwa, and Holdenby communal lands).

Data Gaps. *This assessment of food security conditions in Zimbabwe looks only at the communal areas. Other sectors and the urban populations can not yet be considered using this analytic method, due to a lack of objective data. Efforts to remedy this problem are underway by FEWS and other governmental and non-governmental organizations.*

Target Audience : The target audience for the Current Vulnerability Assessment is the community concerned with early warning and food security development for Zimbabwe. These users include national and international donors and NGOs, universities, and international organizations. The CVA for Zimbabwe is aimed at the group of people concerned with the question of whether there will be a food emergency in this country within the current consumption year (April 1999 to March 2000) and, if so, what should be done about it.